
INPUT

VENDOR ANALYSIS
PROGRAM



A.T. Kearney is committed to high quality and continuous improvement in the service provided. In each engagement, an A.T. Kearney vice president is actively involved. The firm's structured and quality improvement program is directed by an independent senior officer and includes internal peer reviews and independent client quality reviews at several stages. Client quality ratings are a key component in consultants' annual performance appraisal.

Financials

A.T. Kearney's 1995 revenue grew to more than \$650 million, compared to revenue of \$346.3 million in 1994, prior to the merger.

The firm expects revenue to reach approximately \$850 million in 1996.

Revenue Analysis by Product/Service

In 1996, A.T. Kearney's year-to-date revenue has been derived from the firm's five key service areas approximately as follows:

Corporate strategy	35%
Organizational design	20%
Operations management	20%
IT strategy	15%
Marketing and sales	10%
	100%

Market Financials

A.T. Kearney operates in nearly every major growth industry, including all segments of the aerospace, automotive, communications, consumer goods, energy, financial services, government, health care, insurance, manufacturing, pharmaceuticals, retail, and transportation industries.

Geographic Markets

In 1995, \$370 million (approximately 57%) of the firm's revenue was derived from the U.S., and more than \$280 million (approximately 43%) was derived from international sources.

In 1996, A.T. Kearney's year-to-date revenue has been segmented approximately as follows:

The Americas.	50%
Europe	35%
Asia Pacific	15%
	100%

Acquisitions

In June 1996, A.T. Kearney acquired the consulting staff of the Moscow (Russia) and Washington D.C.-based management consulting firm, Cannon Associates. The terms of the agreement were not disclosed.

- This acquisition is intended to increase A.T. Kearney's presence in emerging markets, especially in Russia and the Commonwealth of Independent States.
- Cannon will serve as, and be head of, A.T. Kearney's newly formed market development and client service group related to work in emerging countries.
- Cannon now has a permanent Moscow staff of 45.

Employees

As of October 1996, A.T. Kearney had 3,600 employees worldwide, 2,500 of which were consultants.

Key Products and Services

A.T. Kearney provides services in the following industry and functional practice areas:

Global Automotive Practice -This group provides strategy and operational consulting, systems integration, and other management consulting services for leading automotive OEMs, suppliers, and vehicle and parts distributors.

- Among the automotive practice's areas of expertise are:
 - Strategic sourcing and supply chain integration
 - Benchmarking and best practices analysis
 - Marketing, sales, and distribution strategy
 - Systems integration, including implementation of integrated application systems such as SAP's R/3 or Baan Company's TRITON packages
 - Process management and organizational effectiveness
 - Business transformation/business process reengineering
 - Information technology implementation
- Based in Detroit (MI), the automotive group has offices in 20 cities on four continents, and employs more than 300 dedicated automotive industry consultants.
- This is A.T. Kearney's largest industry practice.

Telecommunications Practice -Management consultants assist clients in decision making and implementation of solutions regarding issues caused by the convergence of the information, communications, and entertainment industries.

- This group provides services in the following areas:
 - Electronics
 - Telecommunications
 - Wireless
 - Publishing
 - On-line transaction services
 - Entertainment
- Capabilities include:
 - Business strategy and planning
 - Market research and competitive assessment
 - New product development
 - Revenue enhancement
 - Regulatory and legislative strategies
 - Financial modeling
 - Economic policy and planning
 - Mergers, acquisitions, and partnerships
- Consultants have communications and electronics expertise in North America, Europe, and the Asia/Pacific regions, serving clients in all major industries.

Consumer Products Practice -This group provides consulting to help senior management in the consumer products industry with complex strategic, operational, and organizational issues.

- Areas of expertise include:
 - Development of strategies to respond to market discontinuities
 - Fundamental restructuring of the cost base
 - Managing major organizational change
 - Design of store-level micro-marketing and category management strategies
 - Customer satisfaction evaluation
 - Retail front-end technology assessment
 - Store order-process redesign for improved inventory control
- The consumer products group has provided consulting services to companies at all points along the value chain--manufacturers, retailers, and consumers.
- General merchandise experience in the consumer products industry includes grocery products, consumer electronics, major and small appliances, health and beauty aids, apparel, home and garden equipment, sporting goods, photographic equipment, books, toys and games, and footwear.

- Experience with leading retail technology issues includes:
 - Point-of-sale systems
 - Payment systems
 - Warehouse and inventory control systems
 - Voice, data, and video-linked systems
 - Decision support software
- The consumer products group accounts for more than 20% of A.T. Kearney's total worldwide billings.

Financial Institutions Group (FIG) --This group provides a full range of management consulting services to leading financial organizations. The group's areas of expertise include:

- Electronic banking/alternative delivery channels
- Techno-market driven strategies
- Revenue generation
- Merger and acquisition strategy
- Postmerger integration
- Alliance setting
- Organizational effectiveness
- Cost reduction/operational improvement

Chemicals/Pharmaceuticals/Health Care Practice --This group provides consulting services to major global pharmaceutical companies, as well as energy and refined products companies with chemical subsidiaries and industry groups.

- The group services all sectors of the chemical and process industry, including:
 - Basic/commodity petrochemicals
 - Polymers
 - Plastic/advanced materials
 - Specialty chemicals
 - Fine chemicals
 - Pharmaceuticals
 - Inorganics
 - Agricultural chemicals
- Consultants possess both general business capabilities and more specific capabilities tailored to address the industry's technology issues and specific concerns.
- This group has completed more than 500 engagements in the chemical industry worldwide in the past five years.

Oil and Gas Industry Practice-- The oil and gas practice provides services to all major segments of the oil and gas industry.

- Clients include fully integrated major oil and gas companies, independent companies, as well as oil field service and equipment, pipeline, and refining and marketing companies.
- Segments of the industry value chain for which the oil and gas group has worked include:
 - Exploration and development
 - Field operations and maintenance
 - Administrative services
 - Sourcing and procurement
 - Logistics and transportation
 - Refining
 - Retail marketing
 - Pipeline
 - Oil field services and equipment
- Functional expertise and capabilities include:
 - Strategic sourcing
 - Maintenance and operations effectiveness
 - Logistics and supply chain management
 - Technology management
 - Transportation
 - Business process reengineering/change management
 - Organizational effectiveness
 - Business and marketing strategy
 - Environment, health, and safety
- This group has completed more than 200 engagements in the oil and gas industry worldwide in the past five years.

Global Transportation Industry Practice --Consultants work with transportation and logistics services companies in every mode, market segment, and geographic area, including rail/intermodal, motor carrier, aviation, contract logistics, equipment manufacturing, and maritime.

- This group focuses on corporate strategy and also assists clients on operations, marketing, and organizational issues.
- Services experience includes the following:
 - Market entry and strategy
 - Operations improvement
 - Customer service strategy
 - Pricing
 - Cost reduction
 - Merger/acquisition strategy
 - Value-added logistics services
 - Competitive analysis
 - Information technology
 - New product development
 - Restructuring and privatization
 - Strategic sourcing

Utilities Industry Practice --Consultants provide a range of management consulting services from strategic insights to organization and operations, culminating in implementation with information technology experience.

Proprietary methodologies employed include:

- Strategic sourcing
- Supply chain integration
- Business process reengineering

Strategic Information Technology Practice --This group's principal function is the smooth integration of IT-based business transformation, from business strategy through business operations improvement, strategic IT sourcing, implementation, diagnostics, deployment, and the continuous improvement process.

This group has developed a technology consulting approach that includes:

- Core strength in all areas of technology consulting, implementation, and management, including:
 - Strategic consulting
 - Operations and organizational design
 - Technology blueprinting
 - Deployment
 - Technology enablement
 - Testing
 - Ongoing process/technology management
- Emphasis on rapid delivery to realize the business value of new systems quickly
- Expertise in solutions available from a wide variety of potential vendors, including SAP AG, Manugistics Corp., Marcam, Oracle, and Baan Company
- Expertise in providing a full scope of enterprise-wide technology solutions, including:
 - Executive information systems
 - Decision support systems
 - Data warehousing
- A mix of industry, operations, and IT implementation experts on each engagement

In July 1996, A.T. Kearney and EDS jointly created the Business Enterprise Solutions Team (BEST), a special team of 200 systems engineering experts in North America, Europe, and Asia with expertise in the implementation of client/server technologies from SAP AG, Oracle Systems Corp., Baan Company and other enterprise computing vendors.

Strategic Sourcing Practice --Consultants apply the strategic sourcing methodology pioneered by A.T. Kearney to improve the performance of organizations by examining the processes related to their external purchases and determining what should be sourced and how to source it.

- Strategic sourcing brings the software and supplier databases to the client to improve global sourcing activities.
- Consultants help clients to evaluate alternative strategies such as offshore sourcing and manufacturing, and make or buy options, then helps them to optimize vertical integration.

Clients

A.T. Kearney's clients range from international conglomerates to domestic companies in a variety of businesses--manufacturing,

service, nonprofit organizations, and government.

The firm's corporate clients are typically companies with \$500 million or more in annual revenue. The firm has worked for more than 70% of the Fortune 1000 companies and their equivalents outside the U.S.

A sampling of A.T. Kearney clients includes Sears, Eli Lilly, General Motors, Chase Manhattan Bank, Rolls Royce, Bank of America, Philip Morris, Bristol Meyer Squibb, Westpac, the City of Wellington, and Slovenia.

Marketing and Sales

A.T. Kearney's Marketing and Communications Department supports global advertising, public relations, sales and marketing, and collateral development on a corporate and global basis.

This group is supported by field marketing managers who work to support each industry and functional services practice area. This group of marketing managers has a dotted-line relationship with the Marketing and Communications Department.

Competition

A.T. Kearney considers the following companies its key competitors: McKinsey & Company; Booz, Allen and Hamilton; The Boston Consulting Group; Bain & Company; and Andersen Consulting.

Assessment

A.T. Kearney considers its key strengths to include:

- Tangible results derived from the client's business in three areas: economics, relationship development, and market development
- Business and operational strategy consulting
- IT strategy consulting

Some of the key challenges faced by the firm include the following:

- Leveraging A.T. Kearney's relationship with EDS without losing its brand identity or perception of objectivity
- Retaining and recruiting consultants of the highest quality

Parent Company

EDS
5400 Legacy Drive
Plano, TX 75024
Phone: (214) 605-6000
Revenue: \$12,422,100,000 (12/31/95)

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Acxiom Corporation



UPDATED:
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Company Web Site:
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Summary Info

Chairman/ Pres/CEO:	Charles D. Morgan, Jr.
Status:	Public
Employees:	3,050 (03/1997)
Revenue:	\$ 402.0 mil
Year End	Mar-1997

Key Points

- Acxiom Corporation is a provider of data warehousing and mailing list processing services as well as data products, data integration services, decision support services, and outsourcing/facilities management services to major firms in the U.S. and the U.K.
- In April 1996, Acxiom acquired Direct Media/DMI, Inc.™ (DMI), a provider of list brokerage, management, and consulting services for business-to-business and consumer list owners and mailers.
- In April 1996, Acxiom acquired Pro CD, Inc.®, a publisher of reference software on CD ROM.
- In August 1995, Acxiom acquired DataQuick Information Systems® and DQ Investment Corporation (collectively referred to as DataQuick). DataQuick provides real property information to support a broad range applications, including marketing, appraisal, real estate, banking, mortgage, and insurance.
- In July 1995, Acxiom purchased Generator Datamarketing Limited, a U.K.-based provider of data and databases marketing software and processing services.

Company Description

Founded in 1969 as Demographics, Acxiom Corporation is a developer of large data center management software. The company's three core competencies are data integration management and delivery, software development, and network computing.

Acxiom provides a range of services to assist clients in direct marketing organizations with the marketing process. These services include planning and project design, list cleaning, list enhancement and production, database creation and management, fulfillment, and consumer response analysis.

In 1988, the company changed its name to Acxiom Corporation, and the following year expanded into outsourcing as a means of providing data processing functions both remotely and on-site. Acxiom's reputation, built on developing and maintaining marketing database information, is now being extended to business operations and general data center outsourcing services.

The company's outsourcing/facilities management and information management services are provided to traditional direct marketing companies as well as companies not in the direct marketing industry.

Organization and Structure

Acxiom is organized into industry-specific business units focusing on insurance, high-tech, direct marketing, seminars telecommunications, finance, publishing, automotive, and retail markets.

Acxiom's business groups are comprised of Franchised Business Units (FBUs). Each FBU is comprised of self-directed High Performance Work Teams (HPWT). Support functions such as human resources and accounting are decentralized

enabling the FBUs to operate as small businesses.

Internal organization at Axiom focuses on creating work teams to service the needs of specific projects. Technical and operational talent assigned to a project one week may not be in the same position the next week.

Axiom's management structure consists of three levels: the president, the Executive Operating Team (EOT), and the Business Unit Executives (BUEs).

The EOT is Axiom's senior level leadership group whose function is to:

- Create, communicate, and champion the company's vision, beliefs, and corporate goals
- Provide direction for Axiom associate strategies and systems
- Recruit, train, and mentor Axiom associates
- Drive innovation, change, and risk-taking throughout the company
- Set strategic priorities and allocate resources
- Create, define, and provide role models for Axiom's culture
- Establish boundaries for the company, including markets, structure, investments, and technologies

Axiom is headquartered in Conway (AR), with U.S. sales offices located in Charlotte (NC), Chicago (IL), Denver (CO), Fairway and Overland Park (KS), Grapevine (TX), Iselin (NJ), Marietta (GA), McLean and Rockford (VA), Menomone Falls (WI), New York (NY), and Washington, D.C.

Data centers are located in Conway (AR), Carmel (NY), Chicago (IL), and the U.K.

U.K. corporate and customer services operations are located in London, and U.K. fulfillment services and data processing operations are located in Sunderland.

Axiom's subsidiaries include:

- Axiom Chicago Data Center, Inc.
- Axiom Transportation Services, Inc.
- Axiom U.K. Ltd.

Company Strategy

Axiom's business strategy is to develop long-term partnerships with its clients for the joint development of decision support tools. Axiom focuses on converting and managing customers' critical data into actionable information.

The company has been moving away from its traditional dependence on one-time or repeating projects with short life cycles. It believes that only through long-term contracts can customers realize the benefits an Axiom relationship can provide through full-service functional or business operations outsourcing, and management of large volumes of customer information.

In recent years Axiom began to focus on outsourcing services, as it is closely relates to the general focus of the company— dealing with large scale information resources.

Financials

Axiom's fiscal 1996 revenue reached \$269.9 million, a 30% increase over revenue of \$202.4 million for fiscal 1995. Net income was \$18.2 million in fiscal 1996, compared to \$12.4 million in fiscal 1995. A five-year financial summary is shown on the following page.

Fiscal 1996 revenue growth was attributed to the following:

- Financial services revenue grew 51% as a result of 8% growth in credit card processing revenues and \$20.8 million in revenue resulting from the acquisition of DataQuick Information Systems.

- Direct marketing revenue rose 61%, reflecting the \$16 million increase in revenue from the Trans Union marketing services contract and a 26% growth in other direct marketing revenues.
- Insurance revenue increased 13%, including revenue growth from the Allstate Insurance Company data management agreement of 4%, to \$55.8 million.
- Information and communication services increased 34% reflecting revenue from the outsourcing contract with The Polk company of \$6.5 million, 6% growth in the Trans Union data center management agreement, to \$23.6 million and 30% growth in the remaining industry group.

Research and development expenditures were approximately \$6.4 million (2% of revenue) in fiscal 1996, \$7.0 million (3% of revenue) in fiscal 1995, and \$5.9 million (4% of revenue) in fiscal 1994.

In fiscal 1997, management expects revenue growth to exceed 40%, reaching \$386 million to \$390 million in total revenue.

Axiom Corporation

Five-Year Financial Summary

(\$ Millions, except per-share data)

Item	Fiscal Year				
	3/96	3/95	3/94	3/93	3/92
Revenue	\$269.9	\$202.4	\$151.7	\$115.8	\$90.9
• Percent change from previous year	33%	33%	31%	27%	(6.9%)
Income before taxes	\$29.4	\$20.1	N/A	N/A	N/A
• Percent change from previous year	46%	N/A	N/A	N/A	N/A
Net Income	\$18.2	\$12.4	\$8.4	\$6.2	\$2.1
• Percent change from previous year	47%	48%	35%	195%	(44%)
Earnings per share (a)	\$0.70	\$0.54	\$0.38	\$0.30	\$0.11
• Percent change from previous year	30%	42%	27%	172%	N/A%

(a) Per-share data restated to reflect two-for-one stock splits in fiscal years 1995 and 199

Revenue Analysis by Product/Service

Axiom's fiscal 1996 source of revenue, by product line, was distributed as follows:

Data services	37%
Data warehouse/decision support services	18%
List processing services	20%
Outsourcing and facilities management	20%
Other	5%
	100%

100%

Interim Results

Revenue for the three-month period ending June 30, 1996 reached nearly \$94.0 million, an increase of 59% over revenue of \$59.2 million for the same period the previous year.

Results for the quarter include the operations of Pro CD and Direct Media, which were acquired in April 1996. Excluding the effects of these companies, revenue increased 38% over the same period the previous year.

Revenue growth during the period was attributed to increases in the financial, insurance, information services, and direct marketing industry sectors. Revenue in the media/publishing industry sector was unchanged compared to the previous year.

Market Financials

Axiom serves direct marketing organizations and marketing departments of large corporations in the U.S. and the U.K., including financial institutions, insurance companies, consumer credit organizations, seminar companies, catalogers, retailers, publishers, consumer goods manufacturers, membership and continuity associations, and advertising agencies.

The company also serves charities, list users (direct mailers and telemarketers), list owners (customers who generate and own their lists), and list managers and brokers (agents who manage lists and provide direct marketing consulting services).

A three-year source of revenue summary, by industry, is shown below:

Axiom Corporation**Three-Year Source of Revenue Summary**

Industry	Fiscal Year		
	3/96	3/95	3/94
- Financial Services	27%	24%	20%
- Direct Marketing	26%	22%	25%
- Insurance	25%	30%	16%
- Information and Communication Services	15%	16%	16%
- Media/Publishing	7%	8%	10%
- Other	---	---	13%
Total	100%	100%	100%

Geographic Markets

Approximately 93% of Axiom's fiscal 1996 revenue was derived from the U.S., and the remaining 7% from the U.K.

A three year geographic source of revenue summary follows.

Axiom Corporation**Three-Year Geographic Source of Revenue Summary**

(\$ Millions)

Geographic Market	Fiscal Year					
	3/96		3/95		3/94	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$252.2	93%	\$187.9	93%	\$135.5	89%
U.K.	17.7	7%	14.5	7%	16.2	11%
Total	\$269.9	100%	\$202.4	100%	\$151.7	100%

Acquisitions

In the past 15 months, Axiom has completed four acquisitions—two during fiscal 1996, and two during the first quarter of fiscal 1997. Together, these acquisitions are expected to contribute approximately \$100 million to fiscal 1997 revenue.

In April 1996, Axiom acquired Greenwich (CT)-based Direct Media/DMI, Inc. (DMI) for \$25 million.

- DMI is the largest list management company in the U.S. and one of the largest list brokerage and consulting services to business-to-business and consumer list owners and mailers.
- This acquisition is expected to contribute approximately \$40 million in annual revenue.
- Certain operations of Direct Media will be managed through Axiom U.K.
- The acquisition was accounted for as a purchase.

In April 1996, Axiom acquired Danvers (MA)-based Pro CD, Inc., a publisher of reference software and provider of telephone and mapping data on CD ROM.

- Approximately 60 percent of Pro CD's projected \$28 million revenue for fiscal 1997 is expected to be from sales small businesses.
- Axiom issued approximately 1.7 million shares of common stock in exchange for all of the outstanding common stock and common stock options of ProCD.
- The transaction was accounted for as a pooling of interests.

In August 1995, Axiom acquired San Diego (CA)-based DataQuick Information Systems (formerly an "S" corporation) and DQ Investment Corporation (collectively referred to as DataQuick)

- DataQuick provides real property information to support a broad range of applications, including marketing, appraisal, real estate, banking, mortgage, and insurance.
- DataQuick had \$20.3 million in revenue for the year ended December 31, 1994, and is expected to contribute approximately \$25 million to revenue in fiscal 1997.
- DataQuick complements the demographic information Axiom offers through its InfoBase product line, strengthening the company's ability to provide data to the insurance and financial industries, as well as providing the company with on-line presence.
- The acquisition was in the form of a merger of two wholly owned subsidiaries of the company into each of DataQuick Information Systems and DQ Investment Corporation.
- Axiom exchanged 984,839 shares of common stock for all of the outstanding shares of DataQuick's capital stock.
- The transaction was accounted for as a pooling of interests.

In July 1995, Axiom purchased Generator Datamarketing Limited, a provider of data and database marketing software and processing services.

- Generator had revenue of \$3.1 million for the year ended December 31, 1994.

- Generator, a U.K. company based in Herfordshire near London, was acquired for approximately \$6.5 million.
- Included in the acquisition is the Rapidus™ product, a decision support software enabling users to easily extra information from large databases via desktop computers.
- The Generator operations will be managed through Axiom U.K.

Employees

Axiom had approximately 3,000 employees as of July 15, 1996.

Key Products and Services

Axiom's core products and services have traditionally been the list processing and data warehouse services. In additi to the traditional business, Axiom also offers services in outsourcing/facilities management, and information management, as well as InfoBase™ services, and U.K. promotional services.

Axiom's core products and services fall in the following areas:

Data Warehouse/Decision Support Services— Incorporate the full spectrum of Axiom's products and services to provi large-scale solutions for housing, integrating, and analyzing large volumes of data.

- **RelationBase®**— A relational-like data warehouse for segmentation analysis, promotional planning, initiation, tracking and analysis, and decision support.
- **Prospecting and Marketing databases**— Axiom offers the following types of databases:
 - RelationBase data warehouses are used for segmentation analysis, promotional planning, initiation, tracking and analysis, and decision support.
 - Flat structure (non-relational) databases provide a marketing platform for selection, segmentation analysis, reporting, and tracking customer data.
- **Decision support solutions**— Use standard industry tools to provide clients with access to Axiom data warehouses and/or client/server systems.
- **Data integration services**— Allow multiple files from different sources to be combined into a data warehouse. These services include reformatting, standardization, enhancement of name and address information, and identification and/or elimination of duplicates within the warehouse.

Direct Marketing/List Processing Services— Provide rapid, high volume list merge/purge and fulfillment services to assist in planning and production of direct marketing campaigns.

- **List rental services (LOFS)** provide segmentation and fulfillment of list orders. LOFS use a proprietary graphic user interface to provide consolidation of multiple sources of customer data, standardization of data across sources, cleansing, deduplicating, and householding of name and address data based on individual customer needs.
- **Merge/purge services** allow multiple lists from different sources to be combined into one mail file. Axiom provides reformatting, standardization, enhances name and address information, and identifies and/or eliminates duplicates.

Data Integration Services— Provide data integration services for system integrators and hardware and software vendors.

- **Postal products/data hygiene services** are designed to improve and enhance files to minimize postage and optimize deliverability. Services include standardizing addresses, assigning postal, geographic, and demograph codes, and identifying and correcting all changes of addresses. The services can also sort mail and prepare all reporting for mailings.
- **Merge/purge services** allow multiple lists from different sources to be combined into one mail file.
- **Consulting and analytical services** provide customized services for marketing analysis, with a focus on improvi short term profitability on individual mailing and long term strategic marketing strength.

Data Products— Provide industry-specific data solutions for both real-time batch and on-line processing.

- Telephone White Pages (EDGE)— EDGE is a database of names and addresses scanned from the telephone white pages, which can be used and/or enhanced for marketing purposes.
- ^{IB}ConsumerSM InfoBase— Axiom's flagship data product is a multi-sourced database of U.S. households available for database or list enhancement and analysis.
- ^{IB}Business InfoBase— A business-to-business data enhancement and analysis tool that provides demographic data.
- ^{IB}TeleSource®— A multi-sourced database of telephone numbers for name and address appending and reverse appending (both on-line and batch).
- Data acquisition/management— This service provides for the purchase, storage, and transfer of data acquired for customer specific application, and the management of data owner/vendor relationships.
- DataQuick information services products— A range of information products centered around real property information.
- On-line products are offered over the Internet or via EDI, EDT, and other electronically delivered services.

MarketGuideSM— A family of five Microsoft Windows-based access tools for data warehouses, databases, or LOFS. They enable the user to access his mainframe-based file, query it, move it, analyze it, and score it from the users' workstation. MarketGuide also includes mathematical and segmentation features.

Outsourcing/Facilities Management Services

Since 1989, Axiom has been providing outsourcing/facilities management services, managing clients' data centers and/or providing information systems functions, both on-site at the clients' facilities and remotely from Axiom's Conway data center.

Two of Axiom's largest clients use these services:

- In August 1992, a data center management agreement was signed with Trans Union Corporation, one of the three largest credit bureaus in the U.S. The agreement provided for the management of Trans Union's data processing center in Chicago (IL) through Axiom's subsidiary, Axiom Chicago Data Center, Inc.
- In 1994 the agreement was extended to include the outsourcing of all of the data processing services for Trans Union's Marketing Services Division.
- In September 1992, through its subsidiary, Axiom RM-Tools, Inc., Axiom began managing the outside purchasing and internal processing of consumer data for Allstate Insurance Company, which had previously been handled by Allstate's 28 regional offices.
- Axiom provides software systems and database management services for use in conjunction with new auto insurance policies. In addition, Allstate uses software systems developed by Axiom to help evaluate auto policy renewals and to market various types of insurance to new and existing customers.

InfoBase Services

The InfoBase ^{IB}ConsumerSM database is comprised of household data owned by seven data contributors who permit InfoBase to access their data for the purpose of list enhancement, list analysis, segmentation modeling, and merge/purge screening. Data made available through InfoBase includes consumer names and addresses, as well as demographic information.

In addition to the ^{IB}Consumer database, InfoBase offers the ^{IB}BusinessSM database comprised of data provided by American Business Information, Database America, TRW, and The Lead Sheet for use in direct marketing to businesses.

U.K. Promotional Services

In addition to the data processing services offered in the U.K., Axiom also provides comprehensive promotional materials handling and fulfillment services to its U.K. customers.

- Services provided include promotional fulfillment, competition handling, in-bound telemarketing and response handling, lead monitoring, contract packing and mailing, and coupon redemption. Axiom uses computerized tracking and monitoring systems to provide customers with current reports on the progress of their marketing campaigns.
- During fiscal 1995, the company mailed more than 10 million promotional items, and custom-handled more than 18 million pieces of direct mail for more than 30 U.K. clients.

Clients

Some of Axiom's top customers include:

- AT&T Telecommunications, Inc.
- Allstate Insurance Company
- American Management Association
- Associates Financial Services Co., Inc.
- Australian Tourist Commission
- Automatic Data Processing
- Bell Atlantic Communications, Inc.
- Britannia Building Society
- Chevy Chase Federal Savings Bank
- Citibank, N.A.
- Dillard's
- First Union National Bank of N.C.
- GTE Corporation
- General Electric
- Guideposts Associates, Inc.
- Imperial Tobacco Limited
- Marketing Profiles
- Meredith Corporation
- NationsBank of Delaware, N.A.
- Physicians Mutual insurance Co.
- Procter and Gamble
- Prudential Insurance Co.
- Signet Bank
- The Polk Company
- Trans Union Corporation
- U.S. West
- Union Fidelity Life Insurance Co.
- Wal-Mart
- Wells Fargo

During the past three fiscal years Axiom had two customers that accounted for a significant portion of the company's revenue:

- Allstate accounted for 20.7% in fiscal 1996, 26.4% in fiscal 1995, and 12.6% in fiscal 1994.
- Trans Union accounted for 15.5%, 12.6%, and 13.6% in fiscal years 1996, 1995, and 1994, respectively.

Marketing and Sales

Axiom markets its services and software products via a direct sales force.

Alliances

In May 1996, Axiom joined Oracle's Business Alliance Programme in an agreement that combines Axiom's data

warehousing and decision support capabilities with Oracle's database and on-line analytical processing (OLAP) strengths.

In November 1995, Axiom and The Polk Company, one of the nation's largest data compilation companies, completed ten-year agreement for the management of Polk's data center operations in Taylor (MI). Management of the operation was transferred in May 1996 to Axiom's Conway (AR) headquarters.

- Management expects the agreement to contribute \$15-\$16 million in initial annual revenue to Axiom.
- This alliance provides Axiom with significant automotive data resources.
- Axiom and Polk are also investigating partnerships in marketing, product development, data acquisition, and international sales.

In June 1995, Axiom entered into a multi-year strategic business alliance with the Claims Solutions Group of Automatic Data Processing (ADP).

- Under the terms of the partnership, ADP will outsource some of its data processing functions to Axiom
- The two companies will also jointly providing a range of services, including systems integration, information management, and data warehousing to the property and casualty insurance industry.

Trans Union Corporation, a long-standing customer of Axiom, has also turned to the company for the outsourcing of data processing services to be used by credit card issuers in marketing efforts.

- In 1994, Trans Union contracted with Axiom for the outsourcing of all the data processing services for Trans Union's Marketing Services Division.
- This alliance provides Axiom with significant financial data resources.

In October 1995, Axiom and the Boston-based consulting firm Grant & Partners formed a joint venture called Axiom/Exchange Marketing Services (AEMS).

- This partnership combines Grant's methodology for helping customers maximize marketing dollars with Axiom's data warehousing capabilities.
- This venture will provide Axiom with access to customers it has so far been unable to reach.
- The joint venture will also develop decision-support software.

In September 1992, Axiom and the Northbrook (IL)-based Allstate Insurance Co. formed an alliance with the goal of creating a new information product to improve risk management and the overall cost of data manipulation.

- The alliance was originally formed to develop a risk management tool for Allstate, in keeping with Axiom's long-term strategy of forming long-term strategic partnerships with its clients.
- In June 1995, the partnership released RM-Tool, a package that combines data warehousing services and risk-assessment software, for other insurers that want to outsource data manipulation for risk management.

Competition

Axiom faces competition in the following areas:

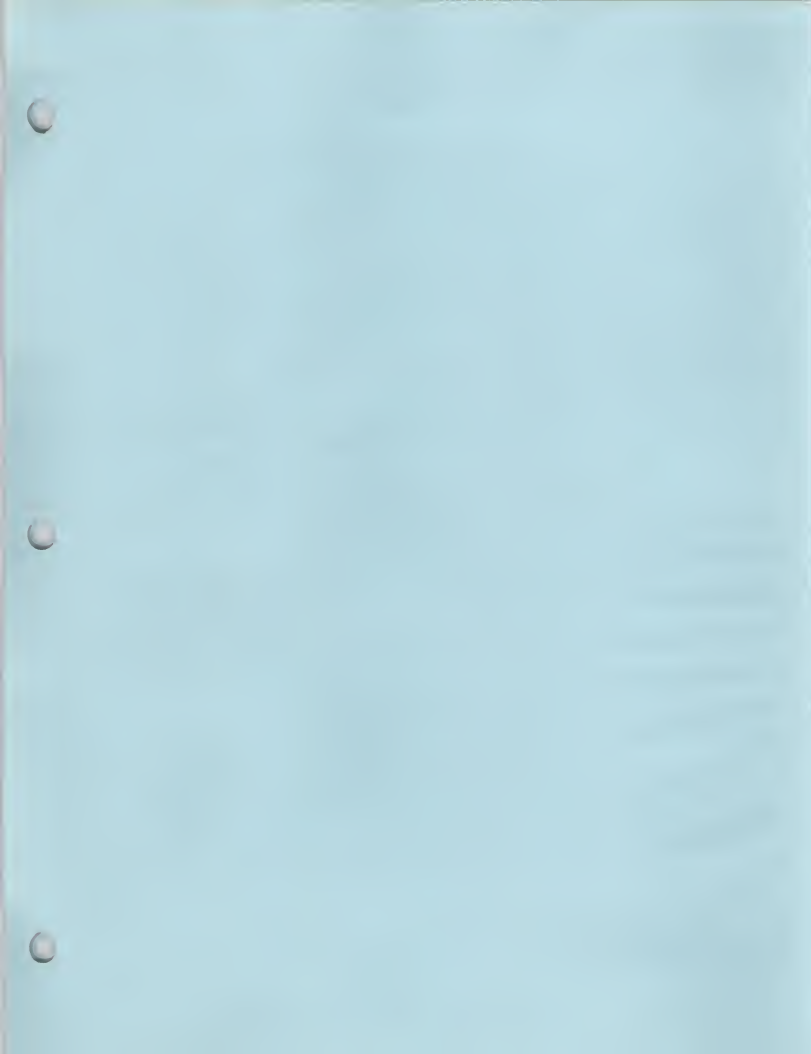
Traditional direct marketing industry services— Key competitors include Metromail and Harte Hanks.

Outsourcing/facilities management services and information management services— Key competitors include EDS and IBM.

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Adobe Systems Incorporated



UPDATED:
05/01/1996

Headquarters

1585 Charleston Road
Mountain View, CA 94043-1225
U.S.

Phone:
(415) 961-4400

Fax:
(415) 961-3769

Company Web Site:
<http://www.adobe.com>

Summary Info

Select Title:	John E. Warnock
Status:	Public
Employees:	2,200 (05/1996)
Revenue:	\$ 762.3 mil
Year End	Dec-1995

Key Points

- Adobe Systems Incorporated (Adobe) is the world's third largest personal computer company, by revenue. The company develops and supports applications software and type products, and offers integrated software solutions to businesses of all sizes.
- In May 1996, at the company's "Improving Net Expectations" event, Adobe made several strategic and new product announcements:
 - The company revealed its three-part plan for improving the Internet experience, focusing on creation tools, printing solutions, and the creation of Internet standards.
 - Adobe announced the formation of a new unit to target the development and marketing of Internet technologies and products. The new unit is headed by John Kunze, formerly the Vice President of Graphics and Publishing Products.
 - Adobe introduced Bravo™, a portable 2-D imaging model based on the company's PostScript® imaging model.
 - The company announced its plan to enter the interactive authoring market with Vertigo, an editing and player technology for the World Wide Web and CD ROM content development.
 - Adobe announced availability of the Web Presenter™ prototype, a technology for creating and publishing integrated presentation over the Internet.
- In May 1996, JavaSoft, an operating company of Sun Microsystems Inc., announced its intention to license Bravo for inclusion into the Java platform.
- In January 1996, Adobe spun off its prepress applications product business to a newly established company, Luminous Corporation.
- In October 1995, Adobe acquired Frame Technology Corporation, a developer of writing and publishing software.
- In October 1995, Adobe also purchased Ceneca Communications, Inc., a publisher of World Wide Web site creation tools, including PageMill™ and SiteMill™.
- During 1995, Adobe entered the HTML-authoring market with the newly acquired software tools from Ceneca.
- In August 1994, Adobe acquired Aldus Corporation, developer of the PageMaker™ page layout program and other software applications for the professional publishing, graphics, and prepress, interactive publishing, and consumer markets.

Company Description

Adobe Systems Incorporated, founded in 1982, develops, markets, and supports computer software products and technologies that enable users to create, display, print, and communicate electronic documents.

Adobe was formed to develop and commercialize applications for its PostScript® page-description language, which is now accepted as the worldwide standard for printing electronic documents.

Adobe's flagship applications are Adobe PageMaker for page layout, Adobe Illustrator for design and illustration, Adobe Photoshop™ for image editing, Adobe FrameMaker™ for complex document publishing, and Adobe Premiere for film editing, video, and multimedia desktop production.

The Adobe Acrobat® family of products provides tools for creating, distributing, and accessing visually rich documents across platforms and networking schemes. Acrobat is also establishing an open, universal standard for electronic publishing.

Organization and Structure

Adobe is headquartered in Mountain View (CA), with primary manufacturing facilities located in Santa Clara (CA). Other domestic offices are located in Seattle (WA) and San Jose (CA).

Adobe has international subsidiaries as follows:

- Adobe Systems Europe Ltd. is headquartered in Edinburgh (Scotland), with subsidiaries in France, Germany, Italy, the Netherlands, Spain, Sweden, and the U.K.
- Adobe Systems Co., Ltd. is based in Tokyo, with operations in Australia, Hong Kong, and Mexico.

Company Strategy

During Adobe's first decade, its goal was to provide software to simplify the authoring and printing of visually rich documents. Today, the company's goal has grown to include the distribution and access of that information. The company's vision is now to give everyone the tools to create and use digital information.

John Warnock, CEO of Adobe, believes Adobe Systems could create the standard for publishing information on the Internet. In 1995, the company moved toward this goal with the acquisitions of Frame Technology Corp. and its Standard Generalized Markup Language (SGML), and Ceneca Communications, with its PageMill and SiteMill Web-developing tools.

In May 1996, Adobe announced its three-part plan for improving the Internet experience. The company's Internet focus will be on new media authoring tools, expanding capabilities for improving Internet printing and information distribution, and driving graphics standards for the Internet, such as the recently introduced Bravo.

Traditionally, Adobe's strategy has been to have proprietary technology and develop applications for it. However, Adobe's strategy has changed, and the company is currently establishing an open standard for electronic publishing with Acrobat. Recently, the company has announced an enhanced version of Acrobat that will enable companies to incorporate Acrobat technology into their software and services for Internet users.

Financials

Adobe's 1995 fiscal revenue reached \$762.3 million, an increase of 13% over revenue of \$675.6 million the prior year. Net income was \$93.5 million in 1995, as compared to net income of \$15.3 million in 1994.

A five-year financial summary is shown on the following page.

Fiscal 1995 revenue growth is attributed to increases in both licensing activity related to the PostScript interpreter and increases in application products revenue as a result of new and enhanced product releases.

Product unit volume (as opposed to price) growth was cited as the principal factor in the application products' revenue growth.

Research and development expenditures were approximately \$138.6 million in fiscal 1995, compared to \$113.8 million and \$100.2 million in fiscal years 1994 and 1993, respectively.

Adobe Systems Incorporated Five-Year Financial Summary (\$ Millions, except per-share data)

Item	Fiscal Year				
	11/95	11/94	11/93	11/92	11/91
Revenue (a)					
	\$762.3	\$675.6	\$580.1	\$520.0	\$452.1
• Percent change from previous year	13%	16%	12%	15%	N/A
Income before taxes					
	\$163.9	\$52.9	\$72.4	\$90.0	\$123.4
• Percent change from previous year	210%	(27%)	(20%)	(27%)	N/A

Net income (b)	\$93.5	\$15.3	\$42.0	\$57.7	\$78.7
• Percent change from previous year	511%	(64%)	(27%)	(27%)	N/A
Earnings per share (c)	\$1.26	\$0.22	\$0.62	\$0.84	\$1.17
• Percent change from previous year	473%	(65%)	(26%)	(28%)	N/A

(a) Figures have been restated to reflect the acquisitions of Frame and Aldus in 1995 and 1994, respectively.

(b) Reflects acquisition-related costs of \$46.5 million and \$87.7 million in 1995 and 1994, respectively.

(c) Reflects adjustment for a two-for-one stock split effective July 1993.

Revenue Analysis by Product/Service

Adobe's fiscal 1995 application products revenue grew to \$578.9 million in fiscal 1995, an increase of 12% over application products revenue of \$519 million in fiscal 1994. The company's product group licensing revenue was \$183.4 million, an increase of 17% over revenue of \$156.7 million during the previous year.

A three-year source of revenue summary is shown on the following page.

- Application product revenue growth was attributed primarily to increased demand for Adobe Photoshop, Adobe PageMaker, and the Adobe Acrobat family of products.
- Application product revenue increases were partially offset by the divestiture of Aldus FreeHand in January 1995 and the discontinuance of Aldus PhotoStyler™ in late 1994. These two products aggregated \$53.2 million of revenue in 1994.
- In fiscal 1995, the number of licensing units shipped by OEMs continued to grow. However, some printers were sold at reduced prices, resulting in lower royalties per unit to Adobe.
- This trend was offset by increased demand for Configurable PostScript Interpreter (CPSI) and for color capability, as well as greater penetration into the Japanese market, all of which result in higher royalties per unit.
- Adobe believes the increase in the number of OEM customers from which it is receiving licensing revenue is attributable to the continued acceptance of PostScript software.

Adobe Systems Incorporated Three-Year Source of Revenue Summary (\$ Millions)

Product/Service	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Application products	\$578.9	75.9%	\$519.0	76.8%	\$433.9	74.8%
Licensing	\$183.4	24.1%	\$156.6	23.3%	\$146.2	25.2%
Total	\$762.3	100%	\$675.6	100%	\$580.1	100%

Interim Results

Revenue for the three months ending March 1, 1996 was \$193.6 million, an increase of 2% over revenue of \$188.8 million during the same period the previous year. Net income was approximately \$33.7 million, compared to \$36.1 million during the same period in fiscal 1995.

- Licensing revenue for the quarter was \$46.9 million, compared to \$46.3 million during the same period in fiscal 1995.
- Application product revenue was \$146.7 million, compared to \$142.5 million during the same period the previous year.
- Sales of Adobe Acrobat and the company's new Internet tools, Adobe PageMill and SiteMill, were strong during the period, reflecting new market opportunities for the company related to the Internet.

Market Financials

Adobe provides software and type products to the corporate, government, commercial publishing, entertainment and multimedia, and education markets.

Geographic Markets

Approximately 50% of Adobe's 1995 revenue was derived from U.S. application revenue and the remaining 50% from international sources.

A three-year geographic source of revenue summary, as reported by Adobe, is shown on the following page.

- The Americas operations include licensing revenue, which is recognized on a worldwide basis, in addition to revenue and results of operations in North America, South America, Mexico, and Latin America.
- European operations primarily include subsidiaries in the Netherlands, the U.K., France, Germany, and Sweden.
- Pacific Rim operations include subsidiaries in Japan and Australia.

Adobe Systems Incorporated Three-Year Geographic Source of Revenue Summary (\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
The Americas (a)	\$533.3	70%	\$494.5	73%	\$434.1	75%
Europe	134.0	18%	124.3	18%	118.9	20%
Pacific Rim	107.3	14%	72.0	11%	51.5	9%
Eliminations	(12.3)	(2%)	(15.2)	(2%)	(24.4)	(4%)
Total	\$762.3	100%	\$675.6	100%	\$580.1	100%

(a) Includes licensing revenue, which is recognized on a worldwide basis, in addition to revenue and results of operations in North America, South America, Mexico, and Latin America.

Acquisitions and Divestitures

In January 1996, Adobe spun off its prepress applications product business to a newly established company, Luminous Corporation.

- Luminous will continue to develop, market, and distribute Adobe's prepress application products.
- Adobe will retain a minority equity interest in Luminous and will maintain ownership of certain core technologies for Adobe prepress products.

In October 1995, Adobe acquired Frame Technology Corporation, exchanging approximately 8.5 million shares of Adobe's common stock for all of Frame's outstanding common stock.

- Frame Technology developed, marketed, and supported writing and publishing software for the creation and distribution of critical business and technical documents.
- The acquisition was accounted for as a pooling of interests.

In October 1995, Adobe acquired Palo Alto (CA)-based Ceneca Communications Inc., a start-up company that publishes Web authoring and site management tools. The terms of the agreement were not disclosed.

- Included in the acquisition were Ceneca's PageMill and SiteMill Web development tools.
- These additions are expected to add strength to Adobe's existing Acrobat and Portable Document Format (PDF) electronic-publishing software, and will allow Adobe to offer a full suite of Web-publishing solutions.

Employees

As of December 29, 1995, Adobe had 2,319 employees.

Currently, the company has 2,200 employees.

Key Products and Services

Adobe's products are based on the PostScript language, which serves as the foundation for a family of products used to create, view, exchange, and print documents on a wide range of systems. Adobe attempts to provide comparable feature sets in the Windows, Macintosh, and UNIX environments, and to increase cross-product compatibility and extensibility.

Adobe's Application and Printing and Systems products are shown in the Exhibit on the following page.

Customer Support and Education

Support services provided by Adobe include telephone and on-line technical support and services.

Adobe CustomerFirst® provides complimentary and fee-based service options:

- Complimentary support--person-to-person support for registered Adobe products, offered for a period of time that begins with the first call.
 - The length of the complimentary support period depends on whether the product is a first-time purchase or an upgrade, and whether the product is classified as Level I or Level II.
 - For first-time purchases of an Adobe product, Level I products receive support for one incident; Level II products receive 90 days of support.
 - For product upgrade purchases, Level I products receive support for one incident; Level II products receive 30 days of support.
- Free automated support--24-hour-a-day automated technical information accessed by E-mail, fax, modem, on-line service, or the Internet
- Pay-As-You-Go support--provided by technical specialists
 - 900-number access charges the user's phone bill at a rate of \$2 per minute for Windows and Macintosh products, and \$3 per minute for UNIX products.
 - Flat-fee-per-incident charges are charged to the user's credit card at the rate of \$25 per incident for Windows or Macintosh products, and \$40 per incident for UNIX products.
- Alliance Annual Support programs--annual agreements for individuals and workgroups providing one year of priority, toll-free assistance for all Adobe products
- Adobe also has a bimonthly publication called the *Adobe Magazine* and a series of how-to books published by the Adobe Press.

Adobe Customer Service provides sales and service issue support via phone, fax, or mail.

Adobe prepares and authorizes independent trainers to teach Adobe software classes, sponsors workshops led by its own graphics staff, interacts with independent user groups, and conducts seeding and testing programs.

Exhibit Adobe Systems Products

Product	Description
Application Products	
<i>Graphics</i>	
- Adobe Illustrator™	Leading illustration and page-design tool
- Adobe Dimensions®	For 3-dimensional design
- Adobe Streamline™	For line-art conversion
- Adobe IntelliDraw®	For quick refinement of business graphics
<i>Images</i>	
- Adobe Photoshop	Photo design and production software for prepress, publishing, graphics, and photography professionals
- Adobe Gallery Effects®	Special-effects filters

<ul style="list-style-type: none"> - Adobe Fetch® - Adobe TextureMaker™ 	Cataloging software Texture-design software
<i>Motion and Sound</i> <ul style="list-style-type: none"> - Adobe Premiere™ - Adobe After Effects™ - Adobe After Effects Production Bundle - Adobe ScreenReady™ 	Software for editing film, video, and multimedia productions on the desktop Set of post-production tools for video compositing, motion graphics, and special effects for television and motion-picture professionals For converting layouts and EPS graphics into PICT images for multimedia and video use
<i>Presentations</i> <ul style="list-style-type: none"> - Adobe Persuasion® 	For producing and managing slide, overhead, and on-screen presentations
<i>Type</i> <ul style="list-style-type: none"> - Adobe Type 1 - Adobe Type Library - Adobe Type On Call® CD-ROM - Adobe Type Manager® (ATM) - Adobe SuperATM® - Image Club Catalog™ 	Cross-platform font format Provides more than 2,000 Type 1 typefaces A locked, buy-as-you-go version of the Adobe Type Library Utility tool Enhanced version of Adobe Type Manager Offers a wide variety of typefaces, clip art, and stock images directly to desktop publishers
<i>Page Layout</i> <ul style="list-style-type: none"> - Adobe PageMaker™ 	Leading professional page layout software for documents with varied graphics content. Includes color, page design, printing, and compatibility features
<i>Document Creation</i> <ul style="list-style-type: none"> - Adobe FrameMaker - Adobe FrameMaker+SGML™ - Adobe FrameViewer® 	For documents with consistent content. Integrates WYSIWYG word processing, graphics, page layout, tables long-document building, equations, editing, and conditional text. Integrates SGML authoring and publishing tools For electronic display of Adobe FrameMaker documents

Product	Description
<i>Consumer Products</i> <ul style="list-style-type: none"> - Adobe PhotoDeluxe™ - Adobe Art Explorer™ - Adobe SuperPaint® - Adobe HomePublisher™ - Adobe Type Twister™ - Adobe Paint & Publish™ 	For enhancing and personalizing photos Painting and drawing program for children For basic painting, drawing, and image processing For basic desktop publishing For creation of text for banners, flyers, and invitations Combines SuperPaint and Adobe HomePublisher
<i>Acrobat Products</i> <ul style="list-style-type: none"> - Adobe Acrobat® 3.0 - Adobe Acrobat 3.0 Ten-Pack - Adobe Acrobat Reader™ - Adobe Acrobat Capture™ - Adobe Acrobat Player™ 	Universal creation, distribution, and viewing tool for portable electronic documents. Adobe Acrobat 3.0 contains components of previous Acrobat products, such as Acrobat Exchange™, Acrobat Distiller™, Acrobat Catalog™, and PDF Writer Adobe Acrobat 3.0 for a network of as many as ten users Free viewing tool available via the Internet Document imaging—for converting printed "legacy" documents into PDF files Technology licensed by OEMs, for embedding into projection devices, navigation systems, information panels, and other noncomputer equipment to enable viewing of PDF files
<i>Internet Products</i> <ul style="list-style-type: none"> - Adobe PageMill™ - Adobe SiteMill™ - Adobe PrintMill™ 	Enables the creation of World Wide Web (WWW) pages Includes all of PageMill features in addition to WWW site management tools Intranet and Internet-based printing services, enabling users to print to any printer on their network through a selected WWW browser

Printing and Systems	
- Adobe PostScript Software	An open, general-purpose computer language
- Configurable PostScript Interpreter (CPSI)	An implementation of Adobe PostScript that resides in a workstation or PC rather than in a printer's embedded controller
- Print-on-Demand Systems	Uses PostScript technology for final processing of the print file, and typically uses proprietary technology during prepress activities to format and prepare the file for printing
- Adobe PrintGear™	For the Small Office Home Office (SOHO) market

Clients

Some of Adobe's clients, by market, include:

Corporate--First Call Corporation, Florida Power & Light Company, Clement Mok Designs, and Tandem Computers, Inc.

Government--Internal Revenue Service, the Centers for Disease Control and Prevention, the Department of Defense, and the Department of the Navy

Professional Publishing--Bennett Peji Design, Knight-Ridder Tribune Graphics Network, Medical Economics Company, Der Spiegel (German newsweekly), Bosch & Keuning (Dutch printing and publishing group), and Icônes (French magazine)

Entertainment and Multimedia--Dream Quest Images, Schock Entertainment of New York, and WIVB TV (NY)

Education--The Wharton School of the University of Pennsylvania, Virginia Tech's Department of Chemical Engineering, Cornwall High School (NY), and the Royal College of Art (London)

Marketing and Sales

Adobe markets and distributes its products through its direct sales force as well as through retailers, systems integrators, software developers, VARs, OEMs, and hardware bundle customers.

Adobe's international subsidiaries, Adobe Systems Europe Ltd. and Adobe Systems Co., Ltd., provide support for the company's worldwide distribution network and end-user customers.

Applications products are marketed through retail and distribution channels; however, they are becoming more widely distributed through VARs and systems integrators.

Printing and systems products are licensed and distributed through OEM customers.

Adobe has more than 6,000 resellers in the U.S. and Canada, and more than 300 distributors throughout Europe and the Pacific Rim.

Alliances

Adobe has developed alliances with various companies, including AT&T Corp., IBM Corp., Xerox Corp., and Netscape Communications Corp.

Adobe is a partner in the Adobe Press, a joint venture with Macmillan Computer Publishing, that publishes how-to books.

In May 1996, Adobe and AT&T announced an agreement to provide AT&T's WorldNetSM Service customers with personal publishing capabilities on the WWW. Under the agreement, AT&T will license and distribute Adobe products for AT&T's value-added Internet access service.

In May 1996, Adobe and Microsoft announced a collaborative effort to provide a new universal font format called OpenType[™], which will combine the leading TrueType[®] and Type 1 font technologies of Adobe.

which will combine the leading TrueType® and Type 1 font technologies of Adobe.

In 1994, Adobe invested in Adobe Ventures L.P., a venture capital limited partnership that is chartered to invest in innovative companies strategic to its software business.

- This venture allows Adobe to work with other investors in building new market opportunities.
- Companies in which Adobe Ventures has invested that have filed IPOs include Verity, Siebel Systems, and Fractal Design.

Competition

Adobe's competitors are as follows:

Application Products

Desktop publishing--Interleaf Inc., Serif's Page Plus, and Microsoft's Publisher

PageMaker Windows version--Software from Venture Publisher and Quark Inc.'s QuarkXPress for Windows

PageMaker Macintosh version--Quark Inc.'s QuarkXPress

FrameMaker for Windows and Macintosh--Software from Venture Publisher and Quark Inc.'s QuarkXPress for Windows

FrameMaker in the UNIX environment--Interleaf for technical publishing and WordPerfect and Applix for nontechnical publishing

Illustrator for Windows and Macintosh--Macromedia's Freehand, CorelDraw, and Deneba Canvas

Photoshop--Micrografx Picture Publisher and Fractal Design Painter X2

Video editing: Premiere for Windows and Macintosh--VideoStudio from U-Lead, Digital Video Producer from Asymetrix, MediaMerge from ATI, Razor from In:sync, and VideoShop from Avid

Special effects: After Effects--Software from Parallax and Discreet Logic, and dedicated hardware from Quantel

Business presentations: Persuasion for Windows and Macintosh--Microsoft's PowerPoint, Software Publishing's Harvard Graphics for Windows, and Lotus' Freelance Graphics for Windows

Internet publishing: PageMill and SiteMill--Front Page for Windows from Vermeer Technologies (acquired by Microsoft Corporation in January 1996), MaviPress from Navisoft (a division of America On-line), and Netscape Navigator Gold and LiveWire from Netscape

Electronic document communication: Acrobat--Common Ground from Hummingbird, Replica from Farallon, and Envoy, recently sold to Corel by Novell

Printing and Systems

PostScript interpreter--Hewlett-Packard's Laser-Jet product family

Display PostScript system--QuickDraw in Macintosh, GDI in Windows, and GPI in OS/2

INPUT Assessment

Adobe considers its strengths to include:

- Market-leading products for content creation--for traditional print-publishing markets as well as the Internet/WWW
- Technology and market leadership in printing--from small office/home office to high-end, including new solutions for Internet printing
- Developer of technology--allowing developers and users to experience high-quality 2-D graphics for the Internet

- Developer of technology--allowing developers and users to experience high-quality 2-D graphics for the Internet (Bravo)

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**ADP Financial Information Services****UPDATED:**
03/01/1996**Headquarters**4500 Enterprise Drive
Allen Park, MI 48101
United States**United States Office**

United States

Phone:
313-336-7700**Fax:****Company Web Site:****Summary Info**

CEO:	Joseph Pirret
Status:	Subsidiary
Parent:	Automatic Data Processing, Inc.
Employees:	125 (01/1996)
Revenue:	N/A
Year End	Jan-1900

Key Points

- In February 1994, Automatic Data Processing (ADP) acquired Advantage Systems, Inc.
- Advantage's operations were merged with ADP's Financial Services business unit. Both organizations have a focus on the electronic banking market, selling primarily to the top 300 financial institutions offering cash management services.
- The ADP Financial Services division offers one-stop shopping for financial institutions that wish to deliver wholesale electronic banking applications to customers ranging from small businesses to large corporations.
- FORTEExpress was announced January 4, 1995. This service offers the FORTE software product on an outsourcing basis.
- FORTE for Windows Version 2.2 was released in October 1995.
- The company plans to deliver an Internet product in mid-1996.

Company Description

ADP Financial Services provides electronic banking software and outsourcing services in partnership with more than 200 financial institutions.

ADP Financial Services is a business unit of ADP, the leading provider of payroll processing services.

Mission Statement

ADP Financial Services is dedicated to delivering a range of services supporting both outsourced and in-house operations. Its strategy is to establish long-term partnerships with its clients and to develop, support, and enhance flexible, reliable products that allow clients to leverage their individual strengths.

Company Strategy

ADP Financial Services' strategy is to provide software solutions and services to financial services institutions and corporations for payments, collections and related services.

The company targets regional and money center commercial banks and corporations that need to secure access to information and transaction initiation.

Organization and Structure

ADP Financial Services is a separate operating group that reports directly to ADP's Treasurer, Joseph Pirret.

ADP Financial Services' main facilities are in Ann Arbor (MI) and Waltham (MA).

Market Financials

One hundred percent of ADP Financial Services' revenue is derived from the financial services industry.

Approximately 30% of revenue is derived from software products and 70% from outsourcing services.

Geographic Markets

The majority of ADP Financial Services' revenue is derived from North America. The unit also derives revenue from Europe, South America, and Australia.

Acquisitions

In February 1994, ADP acquired Advantage Systems, Inc. of Waltham (MA).

- Advantage Systems, founded in 1982, provided wholesale electronic banking software products, network services and consulting professional services to the financial services industry. Its key product was the FORTE Financial Services System for cash management.
- Advantage Systems was privately held and had approximately 65 employees at the time of the acquisition.

Employees

ADP Financial Services has approximately 125 employees, segmented as follows:

Marketing	5
Sales	10
Customer service	22
Technical support	8
End-user support	10
Voice Center	28
Research and development	35
Administrative	7
	125

Key Products and Services

FORTEExpress and FORTE for Windows allow banks to deliver a range of cash management services.

- Services include:
 - Monitoring of account balances
 - Making payments and transferring money
 - Verifying whether transactions have been processed
 - Stopping payments on checks
 - Concentrating funds from regional offices or locations
 - Checking current investment rates
 - Interfacing with other bank systems on-line
 - Receiving other current financial information
- FORTE runs on fully fault-tolerant Stratus minicomputers.
- FORTE is currently used by more than 70 banks worldwide to provide services to more than 35,000 corporations.

FORTEExpress offers access to FORTE software on an outsourcing basis.

CashExpress is the selective outsourcing of specific cash management services, including:

- Data Interchange (multibank reporting)
- Cash concentration
- MIS reporting
- Voice Center data collection
- Networking (via VAN services)
- Touchtone services

Marketing and Sales

ADP Financial Services' strategy is to provide high-quality software and outsourcing services through close partnership with its customers.

The company sells its products and services through its direct sales force. Sales offices are located in Waltham (MA), Chicago (IL), Ann Arbor (MI), and Dallas (TX).

Competitors

ADP Financial Services' primary competitors include Checkfree, National Data Corporation, and Harbinger.

Parent Company

Automatic Data Processing, Inc.
One ADP Boulevard
Roseland, NJ 07068
Phone: (201) 994-5000
Fax: (201) 994-5387

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**Affiliated Computer Services, Inc.****UPDATED:**
03/01/1996**Headquarters**2828 North Haskell
Dallas, TX 75204
U.S.**Phone:**
(214) 841-6111**Fax:**
(214) 828-4389**Company Web Site:**
<http://www.acs-inc.com>**Summary Info****Chairman/CEO:** Darwin Deason
President: Jeffery A. Rich**Status:** Public**Employees:** 3,600 (06/1998)**Revenue:** \$ 313.2 mil**Year End** Jun-1995

Key Points

- Affiliated Computer Services (ACS) provides outsourcing, transaction processing, image management and professional services to a range of clients nationwide.
- ACS entered the professional services market in January 1995 with its purchase of a 70% interest in The Systems Group, Inc., a professional services firm that provides consulting, programming, and technical support services.
- In March 1996, ACS acquired a majority stake in Unibase Technologies, giving ACS entry into the data management market.
- Bank of America, Texas, N.A., historically ACS' largest customer, migrated its processing operations to its parent company and did not renew its outsourcing contract with ACS that expired in August 1995. B of A Texas contributed approximately 11%, 14% and 15% to ACS' fiscal 1995, 1994 and 1993 revenue, respectively.

Company Description

ACS is a nationwide provider of a range of processing services, including outsourcing, electronic funds transfer (EFT) transaction processing, and image management services. The company also provides consulting, programming, and technical support professional services in selected regional markets.

ACS has purchased 19 information processing companies since its inception, which has resulted in geographic expansion, growth and diversification of the company's customer base, expansion of services offered, and increased economies of scale. Approximately 57% of the increase in revenue since 1988 has been attributed to these acquisitions.

In September 1994, ACS completed an initial public offering of 2.3 million shares of common stock, raising net proceeds of \$32.2 million.

- ACS also initiated a restructuring in connection with the public offering, which included the spin-off of certain operations to its stockholders.
- The spin-off involved several subsidiaries whose operations included business forms distribution, real estate investment and brokerage, courier services, and various other lines of business unrelated to ACS' information services business. These discontinued operations contributed approximately \$63.8 million and \$50.2 million to ACS' total revenue in fiscal 1994 and fiscal 1993, respectively.

In March 1996, ACS announced a second offering of approximately 1.8 million shares of its common stock.

Organization and Structure

ACS organizes its services into the following areas:

- *Outsourcing (Commercial Services and Financial Services)*
- *EFT Transaction Processing*
- *Image Management Services*
- *Professional Services*

ACS subsidiaries include the following:

- ACS Merchant Services, Inc. was formed in September 1995 to market point-of-sale (POS) services to independent merchants, retail chains, and banks throughout the U.S.
- Dataplex Corporation, based in Jackson (MS), provides information and image capture, data storage protection, and retrieval services for more than 12,000 financial institutions, private businesses and government agencies.
- The Systems Group, Inc., based in Dallas with more than 350 employees, provides professional services consulting and programming.

Company Strategy

The key components of ACS' business strategy include the following:

- *Expand the customer base*— ACS seeks to develop long-term relationships with new customers, diversify its customer base across multiple industries and expand services offered to existing customers. The company's primary focus is on increasing its revenues per customer by adding large-volume transaction processing customers.
- *Provide flexible information processing solutions*— ACS offers custom-tailored information processing solutions using a range of proprietary and third-party licensed software on multiple hardware and systems software platforms.
- *Maximize economies of scale*— ACS' strategy is to develop and maintain a significant customer and account/transaction base to create sufficient economies of scale that enable ACS to achieve competitive unit processing costs.
- *Complete strategic acquisitions*— ACS' acquisition strategy is to acquire information processing companies that enable ACS to expand its geographic presence, to expand the products and services offered to existing customers and to obtain a presence in new, complementary markets.
- *Invest in technology*— ACS responds to technological advances and the rapid change in the requirements of its customers through the commitment of substantial amounts of its resources to the operation of multiple hardware platforms, customization of products and services that incorporate new technology on a timely basis, and the continuous training of customer service personnel.
- *Build recurring revenue*— ACS seeks to enter into long-term contracts with customers to provide services that meet their ongoing information processing needs. For fiscal 1995, approximately 95% of ACS' revenue from continuing operations was recurring.

Financials

ACS' fiscal 1995 revenue from continuing operations reached \$313.2 million, a 15% increase over fiscal 1994 revenue of \$271.1 million. Net income rose 43%, from \$12.3 million in fiscal 1994 to \$17.6 million in fiscal 1995.

- Approximately two-thirds of the revenue growth in fiscal 1995 was due primarily to internally generated sales growth, with the remainder (approximately \$15.6 million) generated from acquisitions.
- Excluding revenue from B of A Texas, fiscal 1995 revenue increased almost 19% over fiscal 1994.
- In the five-year financial summary shown on the following page, revenues prior to fiscal 1995 have been restated to reflect continuing operations only and exclude the spun off operations previously described.

Revenue Analysis by Product/Service

Approximately 55% of ACS' fiscal 1995 revenue was derived from its outsourcing services, 42% from processing services (21% from EFT transaction processing and 21% from image management services) and the remaining 3% from professional services.

- Outsourcing revenues increased 14% during fiscal 1995 due to an increase in the accounts processed and higher volumes processed for existing significant outsourcing customers.
- EFT transaction processing business increased 15% during fiscal 1995 due primarily to an increase in the number of ATMs processed, particularly from an increase in low-cost ATM devices.
- Revenue from image management services increased 5% during fiscal 1995 due to the acquisition of Microfilm Services Company in January 1995.
- A three-year summary of source of revenue by service line is also shown on the following page.

Affiliated Computer Services, Inc. Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	6/95	6/94	6/93	6/92	6/91
Revenue from continuing operations	\$313.2	\$271.1	\$189.0	\$149.9	\$146.8
• Percent change from previous year	15%	43%	26%	2%	19%
Income before taxes	\$29.8	\$20.2	\$15.8	\$9.2	\$5.6
• Percent change from previous year	48%	28%	72%	64%	239%
Net income	\$17.6	\$12.3	\$9.5	\$5.7	\$3.5
• Percent change from previous year	43%	29%	67%	63%	224%
Net earnings per share	\$1.36	\$1.08	\$0.84	\$0.52	\$0.42
• Percent change from previous year	66%	29%	62%	24%	205%

Affiliated Computer Services, Inc.
Three-Year Source of Revenue Summary
(\$ Millions)

Product/Service	Fiscal Year					
	6/95		6/94		6/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Outsourcing services	\$174.1	55%	\$152.2	56%	\$118.5	63%
EFT transaction processing	64.5	21%	56.0	21%	43.6	23%
Image management services	65.9	21%	62.9	23%	26.9	14%
Professional services	8.7	3%	--	--	--	--
Total	\$313.2	100%	\$271.1	100%	\$189.0	100%

Interim Results

Revenue for the six months ending December 31, 1995 reached \$180.6 million, a 26% increase over \$142.9 million for the same period in 1994. Net income reached \$10.7 million, a 33% increase over \$8.1 million for the same period a year ago.

- Revenue growth was attributed to strong new business signing in outsourcing, the continued expansion of the EFT network, and the effect of acquisitions.
- ACS has increased the number of ATMs in its network by more than 50% in the last six months, with more than 4,600 ATMs installed throughout the country.

Market Financials

ACS' target market for its commercial outsourcing services consists of medium-sized to large commercial organizations with time-critical, transaction-intensive information processing needs.

- This includes retailers, wholesale distributors, health care providers, and telecommunications, transportation and other commercial companies.
- The primary geographic market for these services is the U.S., although ACS evaluates international opportunities from time to time.

ACS' target financial services customer base is primarily regional, non-money-center financial institutions.

- Most of ACS' financial processing customers are based in the southwestern U.S., and back-office services are provided in the southwestern and northeastern U.S.
- Securities processing customers are primarily located in the northeastern U.S.
- Currently, the majority of ACS' processing financial institution customers are commercial banks, although ACS intends to continue its efforts to expand the number of thrifts and credit unions serviced and to market to all sizes of financial institutions.

EFT services are marketed to financial institutions and retailers, primarily in the southern U.S.

Geographic Markets

Virtually 100% of ACS' revenue is derived from the U.S.

Acquisitions

In March 1996, ACS acquired a majority stake in Unibase Technologies, Inc. Terms of the acquisition were not disclosed.

- Unibase, founded in 1985 and based in Salt Lake City (UT), is a nationwide provider of high-speed data capture and database management services. Millions of information records are digitized and transmitted daily from customer locations throughout the country for high-speed conversion and database update.
- Unibase clients include United Parcel Service and American Express Company.
- Unibase, with approximately 1,285 full-time employees, had revenue of \$27 million for the fiscal year ending September 30, 1995.
- Unibase will operate as a division of ACS.

In December 1995, ACS acquired a majority interest in The LAN Company.

- Based in the greater Philadelphia area, The LAN Company provides network design and installation services and document management systems to law firms and commercial firms in the Northeast.
- With offices in Pennsylvania, New Jersey and Massachusetts, The LAN Company reported revenue of approximately \$12 million in 1995.

In September 1995, ACS acquired Technical Directions, Inc. of San Diego (CA). Terms of the acquisition were not disclosed.

- Technical Directions provides contract computer programming services to approximately 35 clients in southern California.
- The operations of Technical Directions will join ACS' professional services subsidiary, The Systems Group (TSG). The combined companies will have 350 employees and annual revenue of more than \$30 million.
- The acquisition allows TSG to expand the variety of programming skills its offers.

In August 1995, ACS acquired MEDIANET, Inc. of Austin (TX).

- MEDIANET is an on-line marketing services company that provides claims processing for co-op marketing programs, serving many of the largest Fortune 1000 companies.

In April 1995, ACS acquired McCoy Myers and Associates of Amarillo (TX). Terms of the agreement were not disclosed.

- McCoy Myers was a privately held bank processing company serving more than 100 banking clients in Texas, Oklahoma, Kansas and New Mexico.
- McCoy Myers offers hardware-independent software compatible with other UNIX products that is available for installation on client hardware or ACS hardware for clients preferring a service bureau environment.
- The acquisition complements ACS' service offerings to the financial industry.

In February 1995, ACS acquired certain assets of TOTAL/1 Services Corporation of Houston (TX). TOTAL/1 was a privately held credit union processing company serving more than 65 credit unions in the Southwest.

In January 1995, ACS acquired 70% of the outstanding common stock of The Systems Group, Inc. (TSG) of Dallas (TX).

- TSG was a privately held provider of professional services, primarily in the Dallas/Fort Worth area. With offices in Dallas and Atlanta, TSG had revenue of more than \$14 million during 1994.
- TSG now operates as a subsidiary of ACS.

In January 1995, ACS' Dataplex subsidiary acquired Microfilm Service Company, Inc. (MSC) of Seattle (WA) for a combination of cash and ACS stock.

- MSC captures, stores, manages and retrieves information using microfilm, microfiche, imaging, optical disk technology and paper. MSC, with offices in Seattle (WA) and Portland (OR), had 1994 revenue of approximately \$8 million.
- The acquisition expands Dataplex's customer base in the Pacific Northwest.
- The operations of MSC have been merged into Dataplex.

In January 1995, ACS acquired the item processing business of Hancock Bank of Louisiana.

- The acquisition included the bank's Baton Rouge operations, resulting in the formation of the ACS Baton Rouge Data Center.
- This center provides a range of information processing, image processing and back-office services for Hancock Bank and other financial institutions using Unisys hardware and ITI software.

Employees

As of June 30, 1995, ACS had approximately 2,800 employees.

The company currently has more than 4,600 employees.

Key Products and Services

Outsourcing—Commercial Services

ACS' primary outsourcing services provided to commercial businesses include on-line and batch processing of data and network management assistance.

- The mission-critical application systems processed by ACS for its customers include financial, human resources, retail and wholesale inventory distribution, health care management, transportation management, commercial and residential telephone billing, and software development systems.
- Services are generally provided on a variety of client/server and mainframe platforms at ACS data centers. In rare instances, ACS may operate a customer's data center under a facilities management arrangement.
- Host data centers in Dallas (TX) and Santa Clara (CA) serve customers throughout the U.S.
- Commercial processing services are typically priced on a resource utilization basis rather than on the basis of accounts or transactions processed.

Contract examples include the following:

- In March 1996, ACS announced it had restructured and extended its outsourcing agreement with Caremark Inc., its largest client. ACS will provide an advanced fault-tolerant environment with fully redundant power supplies, telecommunications facilities, and RAID-based DASD superstrings.
- In late 1995, ACS signed an agreement with the American Medical Association (AMA) whereby ACS will migrate the AMA's mainframe-based processing operations to ACS' computing center in Dallas. ACS will also support the AMA's internal software development for financial, human resource, database management and other business applications.
- During 1995, ACS was awarded a three-year outsourcing contract with Scripps Health to provide mainframe processing from the ACS data center in Santa Clara (CA).
- During 1995, ACS was awarded an outsourcing contract with Hexcel Corp. to provide mainframe processing from the ACS data center in Santa Clara. ACS will also design and implement a frame-relay wide-area network.
- In August 1995, ACS announced a three-year agreement with Zebco, a division of Brunswick Corporation, to support Zebco's transition from legacy mainframe to client/server technology. ACS is supporting Zebco's financial, sales, manufacturing and distribution applications at the ACS Computer Utility Center in Dallas.
- In June 1995, ACS was awarded a seven-year agreement valued at \$12 million to \$18 million by Keystone International to support Keystone's transition from legacy systems and local-area networks to SAP's R/3 system.

- In May 1995, ACS was awarded a contract to provide mainframe computing services for the TRW Space & Electronics Group.

Other outsourcing clients include ScrippsHealth, NYNEX, Loma Linda Medical Center, Pope & Talbot, Lend Lease Trucks, and Gold Coast.

Outsourcing--Financial Services

ACS offers a range of outsourcing services to commercial banks, thrifts and credit unions.

- ACS satisfies its customers' core processing requirements (deposits, installments, commercial and mortgage loans, financial accounting and reporting, and central information file processing) through both on-line and remote batch processing, data entry systems, full on-line central information file and in-bank data delivery systems.
- ACS' mainframe-based processing solutions to financial institutions use ACS' proprietary software (ACS Advantage) or software licensed from third parties, including the Kirchman Corporation and Information Technology, Inc. (ITI). Of the financial institutions receiving full processing services from ACS, 30 customers are processed using the ACS Advantage system, 27 are processed using Kirchman systems and 12 are processed using ITI systems.
- The acquisition of McCoy Myers and TOTAL/1 during fiscal 1995 enhanced ACS' offerings to smaller financial institutions via UNIX-based, proprietary software products designed for in-house or service bureau processing for banks and credit unions. These businesses provide processing services to 35 banks and credit unions on a service bureau basis and provide software maintenance and support to 120 customers.
- Full back-office services (including proofing and encoding, bulk filing and statement preparation) are provided by ACS to accommodate additional check-processing and item-capture needs of customers.
- ACS expanded its back-office services in 1995 through an agreement with the Superintendent of Banks of the State of New York, which resulted in the addition of item processing services, under a subcontract arrangement, to more than 275 banks, savings banks, thrifts and credit unions, primarily in the Northeast.
- ACS' outsourcing services to financial customers are typically priced on the basis of account volume.
- The total number of accounts processed by ACS for its financial institution customers as of June 30, 1995 exceeded 700,000.

In addition to providing core processing and back-office services, ACS provides securities processing services using proprietary software to money-center banks, mutual funds, and limited partnerships. These services include stock transfer and corporate reorganization services, processing for partnerships and mutual funds and processing for governmental escheatment proceedings.

ACS also offers a variety of ancillary services and products to smaller financial institutions to enable them to compete with larger financial institutions. These services and products include voice-response access banking, safe deposit box accounting, cash management services, imaging services and optical disk/report recall and on-line reports.

ACS Merchant Services, formed in September 1995, functions as a full-service processor of credit and debit bank card transactions for merchant and agent banks. These services include terminal software applications for retail, lodging, restaurant and other types of businesses. ACS Merchant Services also provides full help desk services for both hardware and settlement problems, chargeback assistance and customer POS solutions. There are currently seven bank customers.

As of June 30, 1995, data processing outsourcing services were provided to more than 600 financial institutions and other customers. Of these customers, more than 100 received full processing services, more than 350 received back-office processing services, approximately 30 received securities processing services, and more than 120 received software maintenance support.

Contract examples include the following:

- In December 1995, ACS was awarded a multimillion-dollar transitional outsourcing contract with GATX Capital Corp. to support GATX's transition from legacy systems to SAP's R/3 client/server environment.
- In September 1995, ACS announced an outsourcing agreement with Extebank to provide account processing, back-office support and ATM processing services from ACS' Woodbury (NY) data center. Extebank, based in Hauppauge (NY) is a subsidiary of Banco Exterior de Espana.

EFT Transaction Processing Services

ACS engages in EFT transaction processing both as a third-party processor for financial institutions and retailers and on its own behalf.

ACS' MoneyMakerSM ATM Network, one of the largest proprietary ATM networks in the U.S., is used to process electronic funds transfers (EFTs).

- MoneyMaker is a Tandem-based product featuring fault-tolerant connectivity of ATM and POS devices. MoneyMaker

is fully interfaced to ACS' banking systems, permitting update of account balance information files.

- The network encompasses more than 4,625 ATMs throughout the U.S. owned or managed by ACS. Each month, the MoneyMaker network processes more than 10 million transactions and provides connections to all the major national networks.
- In a typical ATM transaction processed by ACS, a debit or credit cardholder inserts a card, which is issued by the cardholder's financial institution (card issuer), into an ATM to withdraw funds, obtain a balance inquiry, or transfer funds. The transaction is routed from the ATM to ACS' data center, where the card issuer is identified by the ID number on the card's magnetic strip. If ACS maintains the card issuer's account balance information files, ACS authorizes or denies the transaction. If ACS does not maintain the card issuer's account balance information files, the transaction is switched to the card issuer or its designated processor for authorization. Once authorization is received, it is routed back to the ATM and the transaction is completed.
- As of June 30, 1995, ACS had one million card accounts for 303 financial institution customers located in Arkansas, Illinois, Louisiana, Mississippi, New Mexico and Texas.
- MoneyMaker processing contracts generally provide for an initial term of three to five years and automatically renew unless notice of non-renewal is given. Charges for services are based primarily on the volume of transactions processed and are collected daily. Certain charges are paid monthly.
- MoneyMaker ATMs owned by ACS are generally located in retail locations such as convenience stores and grocery stores. ACS typically signs three- to seven-year contracts with retailers for the right to place ATMs in retail store locations. In exchange, ACS pays the retailer a share of the transaction-based fee revenue. As of June 30, 1995, ACS had 1,257 ATMs in retail locations throughout nine states. Retailers include Target, Walgreens, Wal-Mart and 7-Eleven stores.
- ACS also offers low-cost ATMs (CashMaker) to retailers with lower transaction volumes. The ATMs are either owned or rented by the retailer. As of June 30, 1995, approximately 1,100 of these ATMs had been installed in retail sites in more than 25 states, of which approximately 1,000 are owned by retailers.

Contracts include the following:

- In October 1995, ACS was awarded a five-year services agreement with Card Capture Services, Inc. (CCS), whereby more than 450 ATMs will join the MoneyMaker network.
- In September 1995, ACS formed an alliance with Integrated Delivery Technologies, Inc. (IDT), whereby ACS will provide ATM processing services for IDT's Cartel Network customers. IDT/Cartel is a national ATM network for supermarkets.
- ACS has a new ten-year ATM contract with Southland for all its corporate 7-Eleven stores in Texas.
- Other EFT clients include Albertson's, Minyard Food Stores and Kroger.

ACS provides ATM maintenance services to approximately 265 customers, 63 of which are also EFT processing customers.

- As of June 30, 1995, ACS' 101 technicians maintained almost 2,000 ATM terminals of various types in 20 states.
- ATM maintenance contracts generally have a minimum initial term of three years.
- ACS provides armored car services for ATM cash replenishment by subcontracting with major armored car companies.

ACS provides electronic benefit transfer (EBT) transaction processing services to governmental agencies through its subsidiary, ACS Government Services, Inc. EBT services deliver welfare and other government benefits electronically using a debit-like card, rather than by check or other printed vouchers.

Image Management Services

Through its Dataplex subsidiary, ACS offers services that convert customer data onto suitable media, stores such data in a secure environment, and retrieves archived data. Dataplex also sells a variety of imaging equipment and supplies.

Dataplex receives customer information in a variety of media, such as paper, microfilm, computer tape, or optical disk.

- Upon receipt, the information is either duplicated or converted into another medium and then the information is returned to the customer in the desired medium.
- In many instances, a copy of the information is stored at ACS' records storage and retrieval facility in Flora (MS).
- Image management services are provided through 37 service centers in 18 states.
- Services are generally priced based on the volume of information and images (document pages, COM frames, microfilm rolls) processed, stored, or retrieved. Services are generally provided under one-year renewable contracts, with the exception of major accounts, which operate under multiyear contracts with initial terms of three years.
- Dataplex currently provides services and products to more than 12,000 customers nationwide. Financial institution customers represent about 50% of Dataplex's customer base.

In late 1995, Dataplex signed a \$2.5 million systems integration contract with The Psychological Corp. (TPC) to develop an image-enabled workflow system to automate TPC's student test scoring process.

Data Centers

ACS' outsourcing, EFT and image management services are provided through ACS' extensive national data and service center network, which consists of two host data centers, 12 remote data centers and 37 image management service centers, as well as an extensive telecommunications network.

- ACS' multiplatform host data centers in Dallas and Santa Clara have a combined processing capacity of more than 1,600 MIPS.
- Hardware and systems software platforms currently operated by ACS include a range of on-line IBM MVS, IBM DOS, IBM VM, IBM AS/400, Digital, Tandem/Guardian and UNIX processing environments.
- Remote processing centers are in Boston (MA); New York, Pearl River, Woodbury and Utica (NY); New Orleans and Baton Rouge (LA); and Austin, Ft. Worth, Houston (2) and Waco (TX).

Professional Services

Through The Systems Group (TSG), ACS provides consulting, programming and technical support services. Services are generally performed on an hourly rate basis to a changing client base under short-term contracts.

Clients

As of June 30, 1995, ACS had more than 700 outsourcing customers (of which approximately 220 were commercial customers), more than 120 software maintenance customers, 345 EFT processing customers, and more than 12,000 image management customers.

Marketing and Sales

ACS markets its services and products primarily through separate sales forces located throughout the U.S.

As of June 30, 1995, ACS' sales force included 37 sales representatives for outsourcing services, 7 sales representatives for EFT transaction processing services, and 72 sales representatives for image management services.

Alliances

ACS has a range of alliances with various vendors, including the following:

- In February 1996, Dataplex and FileNet announced a document services outsourcing alliance whereby FileNet and Dataplex will jointly market and deliver outsourced document solutions.
- In December 1995, ACS and Affinity Technology Group announced a value-added remarketing agreement whereby ACS will remarket Affinity's automated loan machines to current and future customers of ACS' MoneyMaker ATM network.
- In June 1995, ACS entered into a National Implementation Partner agreement with SAP America. Under the agreement, ACS will work with selected SAP customers throughout their transition to the R/3 client/server system. ACS will outsource the customers' existing legacy systems and provide help desk and other support services.
- In June 1995, ACS announced a joint ATM marketing agreement with Fleming Companies, Inc. whereby Fleming will market ACS' processing services (including transaction authorization and hardware reselling) to Fleming's retail customers. Fleming is a leading food marketing and distribution company.
- In August 1994, ACS entered into a ten-year software license with Computer Associates, making all of CA's mainframe systems available to ACS and allowing ACS' outsourcing customers to operate these products under ACS' license. ACS is also a reseller of CA's Unicenter client/server software.

Competition

ACS' competitors include the following:

- *Outsourcing*-- EDS, IBM ISSC, CSC and Flserv
- *EFT processing* --EDS, Deluxe Data Corporation, Flserv, certain regional ATM networks, large financial institutions and other third-party processors
- *Image management* --First Image (a division of First Financial Management/First Data Corporation), Anacomp, and

numerous small to medium-sized local and regional firms.

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ALLTEL Information Services, Inc.

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11/01/1997

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Summary Info

Chairman: William L. Cravens
President: Jeffrey H. Fox
Status: Subsidiary
Parent: ALLTEL Corporation
Employees: 7,300 (08/1996)
Revenue: \$ 959.1 mil

Year End

Dec-1996

Key Points

- ALLTEL Information Services, Inc. provides application software, information processing management, and outsourcing services to multiple industries.
- In May 1997, ALLTEL implemented its state-of-the-art customer care and billing system, Virtuoso II, in three of GTE's first personal communications services (PCS) markets.
- In May 1997, the company entered the Web-based development market with a new Web browser version of its Executive Notebook® application, a client/server application that uses ALLTEL's Information Warehouse facility.
- Also in May 1997, ALLTEL's Residential Lending unit became the first service bureau to successfully integrate with the MERS (Mortgage Electronic Registration Systems, Inc.), an industry-owned utility to streamline the real estate finance industry.
- In March 1997, ALLTEL's Enterprise Network Services launched *NetKnowHow*™, a new service to address the needs of network managers for performance, expandability, and accessibility.
- In March 1997, the company announced a five-year business process outsourcing agreement with Wilmington Savings Fund Society (WSFS), a \$1.4 billion savings bank.
- In February 1997, ALLTEL announced a \$276 million agreement with Colonial Limited, an Australian-based financial services provider, to create and operate a comprehensive information and telecommunications system.
- In February 1997, ALLTEL signed a seven-year agreement with Wireless One Network for remote outsourcing and migration from Virtuoso wireless software to Virtuoso II.
- During 1997, the company signed new and renewal contracts with eight community banking customers for the HORIZON Banking System.
- In January 1997, ALLTEL formed its Professional Services business unit to provide information technology management, Year 2000 conversions, large system development and package implementation, technology turnaround projects, and computing and outsourcing services.
- In January 1997, the company announced a 10-year agreement with the Pilipino Telephone Company (Piltel) for cellular bill and notice production.
- In January 1997, ALLTEL announced that it had joined with Integrated Healthcare Solutions (IHSolutions) to create a new company, Eclipsys, to provide healthcare information technology management services.

Company Description

ALLTEL Corporation, the parent company of ALLTEL Information Services, is a customer-focused information technology company that provides wireline and wireless communications and information services.

In 1996, ALLTEL Corporation had worldwide revenue of \$3.2 million. The ALLTEL Information Services sector

has become an increasingly important contributor to ALLTEL Corporation's growth, and in 1996 accounted for approximately 30% of ALLTEL Corporation's revenue.

ALLTEL Information Services, Inc. was founded in 1968 as Systematics Information Services, Inc. and, in 1990, was acquired by ALLTEL Corporation of Little Rock (AR) in a pooling-of-interests transaction valued at \$500 million.

- In 1995, the company changed its name from Systematics Information Services, Inc. to ALLTEL Information Services, Inc.
- ALLTEL Information Services, Inc., through its operating divisions, provides advanced application software, information processing management, and outsourcing services to the financial services, mortgage, telecommunications, and health care industries.

Organization and Structure

ALLTEL Information Services is organized into industry-focused business units—U.S. Commercial Banking, Global Banking, Telecommunication Services, Residential Lending Services, Healthcare Services—and horizontal business units—Technology Services, Enterprise Network Services, and Professional Services. In addition, ALLTEL has formed several product- and service-specific business units: Call Center Solutions, Relationship Management Solutions, Service Delivery, and Business Process Services.

Headquarters support divisions and groups include Human Resources, Marketing Communications, Business Development, Finance, and Legal.

The company serves customers in 44 countries outside the U.S.

A business model of the organization is shown in Exhibit 1.

- Commercial Banking, headquartered in Little Rock (AR), provides total information-based solutions, including outsourcing services, application software products, training, and professional services to institutions in the financial services industry.

This division includes Sales, Outsourcing Services, Software Services, Marketing, Development/Support, Client/Server Development Support Center, and Community Bank Groups.

- Global Banking, headquartered in Little Rock (AR), provides application software, outsourcing services, and support services to financial institutions outside the U.S., U.S.-based subsidiaries of international institutions, and others that engage in significant international banking activities.

This business unit includes Asia/Pacific Region; Europe, Middle East, and Africa Region; Western Hemisphere Region; Marketing and Sales Support; and Wholesale Banking.

- Telecommunications Services, headquartered in Atlanta (GA), provides software and outsourcing services to wireline and wireless telephone companies in the U.S. and around the world.
- Residential Lending Services, headquartered in Jacksonville (FL), is the largest U.S. provider of mortgage application software and processing services to firms handling residential mortgage loans.
- Healthcare Services, headquartered in Atlanta (GA), continues to provide a range of health care information technology-management services. ALLTEL owns a 15 percent interest in the Edipsys joint venture with IHSolutions.
- Enterprise Network Services, headquartered in Little Rock (AR), provides network consulting, systems integration, and operations services to many of the businesses that ALLTEL serves.
- Professional Services, headquartered in Little Rock (AR), provides financial services management consulting, Millennium Management—Year 2000 services, large systems implementation and integration, resource solutions, and strategic technologies services.
- Technology Services, headquartered in Little Rock (AR), provides technology center services, output processing services, disaster recovery services, and technology products acquisition services.
- ALLTEL's four product- and service-focused business units are as follows:

- o Call Center Solutions, offering a full range of services for implementation and management of call centers
- o Relationship Management Solutions, providing consulting and implementation services for profitable customer relationships
- o Service Delivery, offering advanced architecture solutions for financial services retail delivery
- o Business Process Services, providing back-office business process consulting and outsourcing services

Company Strategy

ALLTEL Information Services' current strategy is to expand in its chosen markets— financial services providers, residential lending entities, telecommunications companies (wireline and wireless), and health care providers—to and seek markets in other business sectors that are synergistic with its expertise. The key elements of this strategy are to:

- Enhance its application software offerings and introduce new industry leading systems. Next to its investment in people, the company's largest investment has always been in its software and technology.
- Expand its software products through acquisitions, investments, and licensing agreements. The company will form agreements with third-party providers to assist its customers with niche products and services.
- Leverage the technology used in support of all business units whenever possible across the company and focus investments in "best practices," shared resources, and continual introduction of new technologies.

Financials

ALLTEL's total 1996 revenue reached \$959.1 million, a 4% increase over 1995 revenue of \$926.3 million. Operating income was \$67 million in 1996, compared to \$132 million in 1995.

A five-year financial summary is shown in Exhibit 2.

Exhibit 2

ALLTEL Information Services, Inc. Five-Year Financial Summary (\$ Millions)

Item	Fiscal Year				
	1996	1995	1994	1993	1992
Revenue	\$959.1	\$926.3	\$861.5	\$677.8	\$569.0
• Percent change from previous year	4%	8%	27%	19%	19%
Operating income	\$67.0	\$132.0	\$129.8	\$116.6	\$94
• Percent change from previous year	(49%)	2%	11%	23%	70%

Source: ALLTEL Information Services, Inc.

- The 1996 revenue increase was primarily attributed to growth in the telecom-munications outsourcing business, reflecting volume growth in existing data processing contracts and the addition of new outsourcing agreements.
- Additional software maintenance and service revenue and growth in new and existing financial and health care outsourcing contracts also contributed to the increase in revenue and sales in 1996.
- Operating income decreased 49%, primarily as a result of a write-down of \$53 million in the carrying value of certain assets, mostly consisting of capitalized software development costs. Excluding the impact of these write-downs, operating income would have increased \$10.0 million, or 8%. Operating income in 1996 was also impacted by start-up costs associated with the Enterprise Network Services

Business unit.

Interim Results

Revenue for the six months ending June 30, 1997 reached \$464 million, compared to \$460 million for the same period in 1996. Operating income for the period rose 7%, to \$69 million.

Market Financials

The company markets its products and services to the financial, mortgage, telecommunications, and healthcare industries.

Primary markets for ALLTEL Information Services divisions are described below:

- U.S. Commercial Banking—U.S. financial services industry players
- Global Banking—Commercial banks and financial and savings institutions outside the U.S.—primarily Europe, Asia, and South America
- Telecommunication Services—The top 150 telephone and communications companies and top 50 wireless companies in the U.S.
- Residential Lending Services—Financial institutions, originating or servicing residential loans, that have sold the loans in the secondary market while continuing to service the loans
- Healthcare Services—Single- (hospital) and multi-site health care facilities in the U.S., Canada, the U.K., and continental Europe
- Enterprise Network Services—Marketed to all industries served by ALLTEL Information Services
- Technology Services—Marketed to all industries serviced by ALLTEL
- Professional Services—Marketed to all industries serviced by ALLTEL
- Call Center Solutions—Marketed to all industries serviced by ALLTEL
- Business Process Services—Marketed to all industries serviced by ALLTEL
- Relationship Management Solutions—Marketed to the financial services industry
- Service Delivery—Marketed to the financial services industry

Geographic Markets

ALLTEL Information Services serves customers in 49 states and in 44 countries outside the U.S.

Acquisitions

In January 1997, ALLTEL entered into a joint venture with Del Ray Beach (FL)-based Integrated Healthcare Solutions (IHSolutions), a provider of comprehensive information systems to hospitals, ambulatory care, and physician-based provider markets. ALLTEL maintains a 15 percent ownership in the new company, Eclipsys, which provides healthcare information technology management services.

Employees

ALLTEL Information Services currently has approximately 7,270 employees, compared to 7,500 one year prior.

Key Products and Services

ALLTEL Information Services' products and services are designed for the financial industry (banks, savings institutions, credit unions, mortgage service, and finance companies), the telecommunications industry (wireline and wireless companies), and the healthcare industry (hospitals, ambulatory, and long-term care).

ALLTEL Information Services provides on-site and remote outsourcing services to financial institutions, mortgage companies, health care providers, and wireless and wireline telephone companies.

- The company staffs, equips, and operates information processing centers through which it provides

these services.

- Information processing contracts are typically for a multiyear period.

U.S. Commercial Banking

In the financial services arena, ALLTEL Information Services offers the following products and services:

- On-site and remote processing services as well as single application outsourcing services
- A complete set of integrated banking and financial application software targeted at financial services companies and financial institutions
 - The software products run on IBM mainframes under DOS/VSE, VM, and MVS and on distributed client/server platforms.
 - All applications are available through the Outsourcing Services Group and may be purchased as individual software products or as a total integrated system. All products are backed by training, documentation, product enhancements, support, and consulting.
- ALLTEL Information Services also markets the Horizon Banking System, a multibank, multibranch system for community banks with more than \$50 million in assets. Horizon is an AS/400-based system available as a turnkey, remote, or on-site outsourcing solution.

Other products include:

- An *Internet banking package*—Includes Internet banking applications, technical support and processing, implementation, and consulting
- *Information warehouse facility*—Uses a UNIX-based relational database structure to consolidate data from multiple applications, vendors, and platforms quickly and easily
- The *Executive Notebook*—Provides a graphical interface that allows mid- to senior-level management to view enterprise-wide data from ALLTEL's information warehouse facility. The Executive Notebook application was enhanced with Web-based development for use on company intranets.

The Community Bank group of U.S. Commercial Banking has the following:

- *Executive Information Services (EIS)*—A PC-based application that allows executives to analyze their financial position quickly and easily
- *Imaging Solutions for Proof of Deposit and Image Statements*—PC software and hardware to manage check processing
- A cash management solution that includes account reconciliation, remote ACH acquisition, and balance reporting

Training Services

ALLTEL Information Services assists financial services clients in implementing training in their organizations.

Training services assistance includes:

- Assessing needs
- Developing strategy
- Developing/customizing courses and course materials
- Training/coaching trainers
- Post-conversion training reviews

Formal courses are offered through ALLTEL Information Services' Career Development Center in Little Rock (AR), providing training support to employees and clients for ALLTEL Information Services' software products.

Global Banking

Global Banking offers a range of software and consulting services:

Software

ALLTEL Information Services provides a complete set of integrated banking and financial application software targeted at financial institutions outside the U.S., U.S.-based subsidiaries of international institutions, and others that engage in significant international banking activities.

- The software products run on IBM mainframes under DOS/VSE, VM, and MVS, and on distributed client/server platforms.
- All applications are available through Global Banking and may be purchased as individual software products or as a total integrated system. All products are backed by training, documentation, product enhancements, support, and consulting.
- International capabilities for ALLTEL Information Services' software include an Origination and Warehouse System, Translator Facility, and multicurrency features.
- ALLTEL's wholesale banking software is modular or a fully integrated, multicurrency package designed to run in a PC LAN, UNIX, or IBM AS/400 environment. ALLTEL recently purchased Vertex, which supplies complete multicurrency solutions for the dealing room, treasury, and commercial operations of international banks. Vertex's complete range of wholesale banking products run on both the mainframe and client/server UNIX and PC platforms.

Telecommunication Services

ALLTEL's Telecommunication Services develops and markets billing services and customer care software, as well as data processing and outsourcing services, for wireless and wireline telecommunications companies.

Products and services offered include:

- Full, remote, and partial information outsourcing services
- Virtuoso wireless customer service and billing software acquired from C-TEC in 1990
- Virtuoso II, ALLTEL's state-of-the art client/server-based customer care and billing information management system
- Software development, customization, and maintenance support systems
- Systems integration and output processing (mail services)
- Business process reengineering and consulting
- Training
- Disaster recovery services

Residential Lending Services

ALLTEL Mortgage Services is a leading provider of data processing services and application software and systems to institutions originating and/or servicing residential loans, that have sold the loans in the secondary market while continuing to service the loans. Other services include consulting, training, and portfolio conversion.

The division also offers an integrated package of information processing solutions as follows:

- Loan Origination—From laptop origination through closing
- Secondary Marketing—Complete risk analysis and position management, including delivery and post-closing document tracking
- Loan Servicing—Customer service, escrow management, default management, investor reporting and accounting, cash management, and interfaces to ALLTEL Information Services' retail systems and electronic data interchange solutions
- Support Services—Consulting, training, conversion and acquisition services, and customized business solutions
- Management Services—Full outsourcing, remote processing options, executive decision making support, portfolio evaluation, and disaster recovery

Over the past year, Residential Lending Services announced several new products, including:

- *CPI Passport™*—An information warehouse with a graphical tool to retrieve and analyze data to satisfy information requests
- *CPI Navigator™*—An electronic library of product documentation
- *CPI Powerview™*—An online report viewing facility that offers both short and long-term archiving.
- *CPI Director™*—An extension of MSP that provides productivity gains through a graphical user interface and enables workflow implementation
- *ALLTEL Products and Quotes*—A standalone product, available through the Internet, that allows lenders to electronically manage and distribute product and pricing information
- *ALLTEL InterView™*—Designed as a traveling sales office incorporating all the tools that a loan originator needs for laptop point-of-entry in a Windows-based environment
- *ALLTEL Interchange™*—An open, value-added EDI network linking loan originators, lenders, investors, and mortgage service providers nationwide
- *ALLTEL InterAct™*—Automates new mortgage loan processing

Healthcare Services

ALLTEL Healthcare Services provides information technology management services to health care organizations

Services include:

- Facilities management—Contracts in which the division assumes total responsibility for a customer's information management operation are typically for five to seven years.
- On-site and remote processing services
- Network design, implementation, and management services
- Disaster recovery services
- Business reengineering services
- Systems integration services
- Implementation services
- Training services
- Charter Program—Contracts in which customers receive new software products and new software releases for a fixed annual fee are typically for five to seven years.

Enterprise Network Services

Enterprise Network Services offers network consulting services to help in the planning and designing of networks. It provides integration services to assist in consolidating multiple networks or in implementing a new network technology. The business unit's network management services provide day-to-day network management. Enterprise Network Services provides customer solutions using "best-in-class" hardware and software solutions.

This business unit focuses on helping customers improve service levels and maximize productivity through design, implementation, and management of voice, data, and video.

In March 1997, ALLTEL's Enterprise Network Services launched *NetKnowHowSM*, a new service to address the needs of network managers for performance, expandability, and accessibility.

Technology Services

Technology Services offers a full range of information technology solutions. These services include technology center facilities, disaster recovery services, output processing (print/stuff/mail), and technology products acquisition services.

- ALLTEL's Technology Centers in Little Rock (AR) and Jacksonville (FL) provide state-of-the-art data processing facilities, including hardware, software, and services consisting of consulting services, support services, and data center management.
- The Output Processing Center provides state-of-the-art automated services to print, stuff, and distribute bills.
- Disaster Recovery Services provides business recovery planning, business recovery management, business recovery resource management, and business recovery consulting.
- Technology Products includes:
 - Hardware/software technology consulting
 - Financial analysis
 - Software value assessment
 - Contract terms analysis

Professional Services

Professional Services offers a full range of information technology management, conversion, training, and consulting services with a staff of professionals who deliver a full spectrum of industry knowledge and technical skills.

Professional Services offers the following services:

- Strategic Technologies Services—Strategic data management, network and systems management, distributed transaction processing, collaborative technologies, end-user computing, rapid development solutions, package integration solutions, Web technologies and Web commerce
- Millennium Management—Year 2000 services including project management support, inventory analysis, assessments, strategy, repair testing, and implementation
- Runaway Systems Management Services—Including assessment, remediation strategy, turnaround management, staff resources, training, project tracking, and ongoing support
- Resource Solutions—Including solutions for acquisitions and conversions, applications management, major software installations, consulting, project management and plan analysis, systems design, interface, and customization and testing
- Large Systems Implementation and Integration—Includes requirement definition/gap analysis, adaptation to business, implementation, testing, trouble shooting, and upgrade assistance
- Financial Services Consulting—ALLTEL provides a range of consulting services that address business issues and the application of technology to improve productivity and financial performance of U.S. and international institutions.
 - The services are geared to the financial industry, where ALLTEL Information Services offers application software solutions.
 - Consultants are experienced, successful bankers.

ALLTEL Information Services' business consulting services focus on the following banking lines:

- Back-office operations
- Retail banking and delivery systems
- Lending and loan operations
- MIS and technology

Business Process Services

Business Process Services provides services to help reduce the administrative costs associated with processing and servicing financial institution accounts, specifically in the deposit and loan areas and item processing.

Relationship Management Solutions

Relationship Management Solutions offer services that pull together the people, tools, and processes to help financial institutions identify, retain, and acquire their most profitable customers.

Call Center Solutions

Call Center Solutions offers a complete range of consulting, implementation, and outsourcing services for call centers in multiple industries. The business unit can manage each aspect of a call center including the technology, environment, management, people, and operations.

Service Delivery

Service Delivery provides tools and services for retail delivery in financial services institutions including ALLTEL's advanced service delivery architecture and integrated applications:

- Call Center Workstation
- Direct Sales Workstation
- Teller Workstation
- Collateral Tracking
- Executive Notebook
- Information Warehouse Facility

Clients

ALLTEL Information Services has existing contracts with over 1,200 customers in 45 countries.

Major contracts segmented by market include:

U.S. and Global Banking— NationsBank, Citibank, Barclays, Chase, National Australia Bank, Westdeutsche Landesbank Girozentrale, Bank Leumi Trust Co., Rockland Trust Co., NordlandsBanken AS, Banco de Credito del Lima (Peru), and Colonial State Bank

Telecommunications Services— Bell South Cellular Corp., C-TEC Corporation, Citizens Utilities, GTE Personal Communications, One 2 One (U.K.), Piltel (Philippines), Wireless One, ALLTEL Telephone Services, and ALLTEL Mobile

Residential Lending Services— BancBoston Mortgage Corporation, Atlantic Mortgage and Investment Corporation, and Norwest Mortgage

Healthcare Services— Beverly Enterprises, St. Vincent Infirmary, Hospital Sisters Health Systems (HSBS), and Eclipsys - Medical Data Technologies

Marketing and Sales

ALLTEL Information Services has domestic sales offices in Little Rock (AR), Dallas (TX), Los Angeles (CA), New York (NY), Jacksonville and Orlando (FL), and Atlanta (GA). Regional offices in the U.K., Thailand, the Philippines, Indonesia, Australia, Hong Kong, and Singapore handle sales and support in those regions.

The company now has customers in 45 countries around the world and employees based in 12 countries.

Alliances

In July 1997, ALLTEL announced that it had entered into an alliance with ICT Group for call center teleservices for marketing, sales, and customer care.

In January 1997, the company announced an expanded five-year joint marketing agreement with Network Imaging for a laser disk report management system.

Competition

ALLTEL Information Services' major competitors by industry are:

Financial services—Electronic Data Systems, IBM ISSC, Fiserv, and Hogan Systems

Residential lending—First American Information Services

Telecommunications—CBIS and Kenan

INPUT Assessment

ALLTEL Information Services is a very strong player in the financial services outsourcing market. The company has strategically implemented a business model whereby each of its divisions is able to offer a suite of software products as well as outsourcing services to customers.

Some of ALLTEL Information Services' major strengths include:

- Proven technology and products
- Commitment to the customer
- Quality service
- Expertise in multiple industries
- Proven outsourcing model
- Worldwide sales and support capability

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America Online, Inc.



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Summary Info

Chairman/CEO: Stephen M. Case
Status: Public
Employees: 7,371 (06/1997)
Revenue: \$ 1,429.4 mil
Year End Jun-1997

Key Points

- America Online, Inc. is the fastest growing provider of on-line services to consumers. The company offers subscribers a wide variety of services, including electronic mail; news, weather, sports and stock quote information; conferencing capabilities; access to software; on-line classes; home shopping; and access to the services of the Internet.
- In January 1996, America Online announced the appointment of William J. Razzouk to the position of president and chief operating officer, reporting to chairman and chief executive officer Stephen Case.
- For the quarter ending December 31, 1995, America Online's revenues rose 235% over the same period in 1994, primarily due to a 191% increase in the number of subscribers. In February 1996, the company announced that the number of subscribers topped five million, representing a ten-fold increase in just two years.
- In the summer of 1996, America Online will offer Microsoft's Internet Explorer as its default integrated browser; members will be able to download Netscape Navigator as an alternate integrated browser.
- America Online has made acquisitions over the past year that expand the company's capabilities in the areas of multimedia production tools, enhanced graphics and browsing capabilities for the World Wide Web, and a branded Internet service.

Company Description

America Online offers a range of on-line network and electronic information services, including electronic mail, conferencing, software, computing support, interactive magazines and newspapers and on-line classes.

- The company was founded in 1985 as Quantum Computer Services, Inc.
- In October 1991, the company changed its name to America Online to more accurately reflect the nature of its operations.
- In March 1992, America Online completed an initial public offering of two million shares of common stock, generating net proceeds of approximately \$10.3 million. In December 1993, the company successfully completed a second public offering of one million shares of common stock, which generated approximately \$62 million in cash.
- In October 1995, America Online approved a 2-for-1 stock split payable on November 28, 1995.

America Online currently has more than five million subscribers in the U.S. and Canada. The number of subscribers has increased significantly over the past year as indicated in the table below:

America Online, Inc.
Subscribers at Quarter-End

Item	3/96	12/95	9/95	6/95	3/95
Number of subscribers	+5,000,000	4,500,000	3,714,000	3,000,000	+2,000,000

Operations/ Structure

America Online is organized into four divisions, each with a clear focus, that establish a central and defining leadership position for America Online in the worldwide market for interactive services.

- AOL Services Company, headed by Ted Leonsis, is the focal point for building interactive environments.
 - AOL Services oversees the acquisition or generation of the wide variety of content available on AOL, is responsible for member support, initiating the development of on-line programming via its joint ventures, product management, interface design and production, marketing, CD ROM, and the development of new revenue streams via interactive marketing programs and transactional services.
 - This unit supports AOL Greenhouse, a program to fund and otherwise support the creation of on-line interactive content by entrepreneurs, and GNN, America Online's standalone Internet service.
- AOL New Enterprises, headed by David C. Cole, is the business-to-business component of AOL Services. This group provides tailored, private on-line services for a company's networking communications, distribution, and promotional needs.
- AOL Technologies, headed by Michael M. Connors, is responsible for delivering research, development, network/data center operations, and member support to the other America Online divisions, technology licensees, and joint venture partners. This group is also responsible for support functions, including technical support, billing, and sales.
- AOL International, headed by John L. Davies, is responsible for marketing America Online's products and services to international markets, primarily in Japan, Europe, and Canada.

Ventures

In March 1996, America Online and New Line Television announced THE HUB--a venture that borrows from the concept of cable and broadcast TV with 25 "programs" on 8 "channels" to provide content in the areas of entertainment, arts and culture, relationships, the latest (and strangest), and news.

In April 1995, America Online entered into a joint venture with Bertelsmann, AG, one of the world's largest media companies, to offer interactive services in Europe.

- The joint venture is equally owned by the two companies. Bertelsmann has agreed to contribute up to \$100 million to fund the launch of the service, will provide access to its book and music club membership base of more than 30 million members, and will offer its publishing content to the joint venture on a most-favored-customer basis.
- America Online will contribute interactive technology and management expertise, proprietary software licenses and development services, staff training, and technical support to develop, test and launch the services in Europe.
- The first service, AOL Germany, was launched in Germany in November 1995. France and the U.K. are expected to follow in the first half of 1996.
- As part of the alliance, Bertelsmann acquired a minority equity stake (5%) in America Online, representing an investment of approximately \$50 million.

In October 1995, America Online and Capital Cities/ABC announced a joint venture to develop an interactive fashion and lifestyle channel on America Online.

2Market, Inc., a company cofounded and majority-owned by America Online, is an interactive shopping service using on-line and CD ROM communications.

- America Online currently owns 69% of the planned joint venture with Apple Computer and Medior, Inc.
- 2Market offers thousands of products from more than two dozen catalogs.

America Online (as well as a group of other investors) has a minority interest in Preview Media, Inc., a leading seller of travel via television. The alliance will allow Preview Media to create new platforms for travel sales within emerging distribution channels (including commercial on-line services and the Internet), broadening the audience for direct travel transactions.

Company Strategy

America Online's strategy is to lead the development of a new interactive medium that potentially will change the way people obtain information, communicate with one another, buy products and services, and learn.

Through the combination of its growing membership base, enhanced look and feel, and ability to program its content to appeal to users, America Online believes it is uniquely positioned to exploit the evolving mass medium for interactive services.

In implementing its strategy, America Online pursues the following initiatives:

- *Invest in growth of its existing service--* America Online plans to continue to invest in the growth of its existing on-line services. It believes it can attract and retain new members by expanding the range of content and services it offers, continuing to improve the multimedia context of its service and building a sense of community on-line. At the same time, by offering access to a large, growing, and demographically attractive audience, together with software tools and

services to develop content and programming for that audience, America Online believes it will continue to appeal to content and service providers.

- *Exploit new business opportunities*-- America Online intends to leverage its technology, management skills and content packaging skills to identify and exploit new business opportunities, such as the consumerization of the Internet, electronic commerce and entry into international markets.
- *Provide a range of interactive services*-- Through acquisitions and internal development, America Online has assembled content development, distribution capabilities, access software and its own communications network to become a full-service, vertically integrated provider of interactive services.
- *Maintain technological flexibility*-- America Online recognizes the need to provide its services over a diverse set of platforms. Its software works on various personal computers and operating systems (including Macintosh, Windows 3.xx and Windows 95) and supports a variety of different media, including on-line services, the Internet and CD-ROM. The company intends to adapt its products and services as new technologies become available in the future.

American Online currently generates revenue largely from membership fees, but the company believes that it will receive revenue in the future from other sources as well, including advertising fees, commissions on merchandise sales to consumers and revenues from the sale of production and network services to enterprises.

Financials

America Online's total fiscal 1995 revenue reached \$394.3 million, a 241% increase over fiscal 1994 revenue of \$115.7 million.

- Net losses of \$33.6 million for fiscal 1995 included charges of \$50.3 million for acquired research and development (related to the acquisitions of BookLink and NaviSoft during 1995) and merger expenses of \$2.2 million associated with the acquisitions of Redgate, Medior, Inc. and Wide Area Information Servers, Inc.
- In the five-year summary that follows, financials have been restated to reflect the pooling-of-interests acquisition of Medior and Wide Area Information Servers during fiscal 1995.

America Online, Inc. Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	6/95	6/94	6/93	6/92	6/91
Net service revenue	\$358.5	\$101.0	\$38.5	\$26.2	\$19.5
Other revenue	35.8	14.7	13.5	12.5	10.6
Total	\$394.3	\$115.7	\$52.0	\$38.7	\$30.1
• Percent change from previous year	241%	123%	34%	24%	N/A
Income (loss) before taxes and extraordinary items	\$(18.5) (a)	\$6.4	\$2.3	N/A	N/A
• Percent change from previous year	(389%)	178%	N/A	N/A	N/A
Net (loss) income	\$(33.6) (b)	\$2.6	\$1.5	\$3.8	\$1.8
• Percent change from previous year	*	73%	(61%)	111%	N/A
Earnings (loss) per share	\$(0.99)	\$0.07	\$0.05	\$0.17	\$0.09
• Percent change from previous year	*	40%	(71%)	89%	N/A

(a) Includes charges of \$50.3 million for acquired research and development associated with the acquisition of BookLink and NaviSoft.

(b) Includes merger expenses of \$2.2 million.

On-line services revenue increased 255% over fiscal 1994 primarily due to a 289% increase in revenue from IBM-compatible

subscribers (with a 273% increase in subscribers) and a 196% increase in revenue from Macintosh subscribers (with a 143% increase in subscribers).

The average monthly on-line service revenue per subscriber increased from \$15.00 in fiscal 1994 to \$17.10 in fiscal 1995.

Other revenue, consisting primarily of new media and interactive marketing services, data network services, multimedia and CD ROM product services, and development and licensing fees, increased 150% due to data network revenue and multimedia and CD ROM product service revenues from companies acquired during fiscal 1995.

Interim Results

Revenue for the six months ending December 31, 1995 reached nearly \$447 million, a 235% increase over \$133.3 million for the same period in 1994.

- Net income for the period was \$328,000 and includes charges for amortization of goodwill of \$3.4 million and expenses for acquired research and development of \$17 million. For the prior period, net losses of \$37.2 million included \$42.8 million of charges for acquired research and development and merger expenses of \$1.7 million.
- On-line services revenue increased 248% due to a 191% increase in the number of subscribers.
- The average monthly on-line service revenue per subscriber for the six months ending December 31, 1995 was \$17.85, up from \$16.04 in the six months ending December 31, 1994.

Market Financials

Virtually 100% of America Online's fiscal 1995 revenue was derived from consumers in the U.S. and Canada.

Through its venture with Bertelsmann, the company has launched interactive services in Germany, with plans to expand to France and the U.K. during 1996.

The company intends to expand its services to include Japan through a joint venture with one or more Japanese partners.

Geographic Markets

As previously stated, 100% of America Online's revenue is derived from the U.S. and Canada.

America Online has offices in Vienna (VA), Boston (MA), Jacksonville and Vero Beach (FL), Tucson (AZ) and Hillsborough (CA).

Acquisitions

In February 1996, America Online acquired Johnson-Grace Company for approximately 1.6 million shares of America Online common stock. The acquisition will be accounted for as a pooling of interests.

- Headquartered in Newport Beach (CA) with approximately 70 employees, privately held Johnson-Grace develops data compression technologies. These technologies, known as ART, allow publishers to create more engaging interactive content that includes graphics, streaming audio and slide shows on the Web and commercial services.
- America Online plans to broadly license ART to strategic partners and content developers across the Internet. Johnson-Grace SDK (Software Developers Kit) will also be available to software application companies that wish to include support for the ART format in their applications.
- Johnson-Grace will operate as a subsidiary of America Online.

In September 1995, America Online acquired Ubique, Ltd. for approximately \$14.6 million in cash and stock.

- Ubique, Ltd. is an Israeli company that offers real-time interaction and joint navigation for the Internet. Ubique developed Virtual Places, a client/server software architecture that humanizes the Internet's World Wide Web by allowing people to virtually meet and interact.
- The acquisition is expected to strengthen America Online's Internet offerings by enhancing and expanding its existing live on-line interactive communication for both its consumer on-line service and its new Internet brand service (GNN, or Global Network Navigator).

In June 1995, America Online acquired Global Network Navigator (GNN), a subsidiary of O'Reilly & Associates, Inc., for approximately \$11 million in cash and stock.

- GNN, the first commercial Web publishing site, is one of the most highly trafficked sites on the Web. America Online's new Internet brand combines the content and context of GNN with the InternetWorks Web browser and software suite, Web directories, and search tools.
- America Online's goal is to build a mass market for interactive services. To do so, the company must reach out to 93% of the households that don't subscribe to any on-line service. The GNN brand expands America Online's scope and broadens its appeal.
- In addition to building original content and programming for America Online's new Internet brand, GNN will continue to provide a range of advertising-supported free services and is available to anyone who has a Web browser.
- GNN operates as a wholly owned subsidiary of America Online.

In June 1995, America Online also announced it had acquired the WebCrawler search tool and Internet index.

In May 1995, America Online acquired Wide Area Information Servers, Inc. (WAIS) of San Francisco (CA) for approximately 400,000 shares of America Online common stock. The acquisition was accounted for as a pooling of interests. WAIS developed and marketed the WAIServer and WAIS Production Services, which create custom on-line services for publishers.

In May 1995, America Online acquired Medior, Inc. of San Mateo (CA) for approximately 825,000 shares of America Online common stock. The acquisition was accounted for as a pooling of interests.

- Medior provides multimedia production tools and services.
- With the acquisition, America Online will accelerate its role in providing content partners with enhanced multimedia publishing capabilities.

In February 1995, America Online acquired Advanced Network & Services, Inc. (ANS), creator of the Internet backbone, for \$35 million in cash and America Online common stock.

- The acquisition included ANS' wholly owned subsidiary, ANS CO+RE Systems, Inc., which provides virtual private data network services, Internet access, network security and related services to major business.
- The acquisition is expected to strengthen America Online's networking strategy to rapidly deploy network capacity from multiple sources.
- ANS now operates as a wholly owned subsidiary of America Online.

In December 1994, America Online acquired two Internet companies that form the nucleus of America Online's Internet Services Company.

- In December 1994, America Online acquired BookLink Technologies, Inc. from CMG Information Services for 710,000 shares of America Online common stock. BookLink developed the InternetWorks interface for Internet viewing/browsing.
- In November 1994, America Online acquired NaviSoft, Inc. for 130,000 shares of America Online common stock. NaviSoft has developed a collection of software products that provide companies with turnkey Internet solutions. These products have been spun off into America Online's GNN service.

In August 1994, America Online acquired Redgate Communications Corporation of Vero Beach (FL) for approximately 447,000 shares of America Online common stock. The acquisition was accounted for as a pooling of interests.

- Redgate—a new media and interactive marketing services company also manages multimedia content databases and delivers its content via custom publications, CD ROM, cable, broadband, demand fax, private satellite networks and digital shopping clubs.
- Redgate's partners and customers include Apple Computer, IBM, EDS, BellSouth, U S WEST, Fidelity, Sun Microsystems, Intel, Olivetti, Racal Datacom, Knight-Ridder, Novell, Xerox, Microsoft, Motorola, NYNEX, Prudential, Pacific Bell, Hewlett-Packard and Fairway Technologies.
- Redgate now operates as a wholly owned subsidiary of America Online.

Employees

As of June 30, 1995, America Online had 2,481 employees, segmented as follows:

Marketing	60
Operations	391
Software and content development	624
Customer support	1,283
Corporate and finance	123
	2,481

The company currently has approximately 4,000 employees.

Key Products and Services

America Online offers a range of services, including electronic mail, conferencing, news, sports, weather, stock quotes, software, computing support, on-line classes, and Internet access, as follows.

- A key feature of America Online's services is the ease with which subscribers with related interests can communicate in real-time conferences, through electronic mail and on bulletin boards. These interactive communications facilities allow people to share information or ideas, exchange advice and socialize.
- America Online promotes real-time on-line communication by scheduling conferences or discussions on specific topics. Electronic mail services allow subscribers to send messages to other members' private electronic mailboxes or to nonsubscribers via fax, U.S. mail or an international electronic mail gateway. Public bulletin boards allow subscribers to share information and opinions on subjects of general or specialized interest.
- America Online supports a variety of software platforms, hardware devices and conduits for delivery of its services. Software platforms include Windows, DOS and Macintosh. The service is available on personal digital assistants (PDAs). In addition, the company supports TCP/IP and is participating in early cable trials using cable as the conduit into PCs and has announced future support of ISDN and wireless.

The range of services offered by America Online is summarized in Exhibit A and includes the following fourteen major departments:

- *Today's News*-- Up-to-the-minute news, business news, sports and entertainment news from more than 20 national and international wire services is provided, including news from Reuters, UPI and Business Wire. Members can get updated local weather information and download national weather maps.
- *Personal Finance*-- With StockLink, members can keep track of stock and option prices listed on various exchanges such as NYSE and NASDAQ, and maintain an updated portfolio. Other services include Morningstar, Vanguard, Investor's Network, PC Financial Network, and Tax Forum.
- *Entertainment*--News and reviews on television shows, ABC Online, MTV Online and Hollywood Online are featured. Members can access news about recording artists and download music in America Online's MusicSpace. This department also includes book and movie reviews, horoscopes, trivia, soap opera summaries, Online Gaming Forums, LaPub (a "virtual pub") and Center Stage, a virtual Theater District where members can chat real-time with the stars.
- *Travel*-- Subscribers can plan travel using information found in The Traveler's Corner, hosted by Weissman's Travel Reports; book airlines, hotels and rental cars through easySABRE; browse through travel information with ExpressNet; and share travel experiences and adventures in The Travel Forum. Information is also provided about golf resorts, bed and breakfasts throughout the country, and travel advisories.
- *MarketPlace*-- This department offers a range of shopping services and brand name products. Members can make purchases through the Global Plaza, which includes products ranging from car accessories to jewelry. They can also order groceries and pharmacy items and have them delivered to their home. America Online provides members with on-line catalog shopping through 2Market, which features goods and services from leading catalogs and retailers. Consumer Reports on-line is also available to guide the on-line shopper.
- *Computing*-- Subscribers can access close to 200,000 public domain or "shareware" software programs that can be downloaded for personal use. They can also get assistance on computing questions from more than 250 PC and Mac vendors who maintain technical support areas on the service, including software libraries, message boards, product information and news about their company. Developers are available to answer questions through conferences or bulletin boards.
- *People Connection*-- The service features a list of member-created "real-time" chat rooms on a variety of topics. Other features include Center Stage, a "virtual Theater district"; The Gallery, which allows members to post their own images; the Games Parlor, which includes a schedule of on-line member games; and a Games and Entertainment newsletter.
- *The Newsstand*--More than 60 magazines and newspapers on a variety of special-interest topics are provided, ranging from Car & Driver to Windows Magazine. Other publications include: *Chicago Online*, *San Jose Mercury Center*, *@Times* (offered through *The New York Times*), *TIME Online*, *OMNI Online*, *COMPUTE*, *Disney Adventures*, *Flying Magazine*, *Elle*, *Business Week*, *Spin* and *Seventeen*.
- *Clubs & Interest*-- America Online's service provides a collection of more than 50 special interest clubs and affinity

groups, including The Better Health & Medical Forum, The Career Center, The Cooking Club, Environmental Forum, The Grandstand, Wine & Dine Online, AARP and others. Message boards and chat rooms are located in the forums so members can communicate with others who have similar interests.

- **Education**-- On-line members can participate in on-line classes, visit the Library of Congress and the Smithsonian, and read National Geographic. This area also offers The Parent's Information Network, The Teacher's Information Network and other resources of information, including a Career Center.
- **Reference Desk**-- Members can search more than 60 information databases ranging from the Bible to the Internet. The Reference Desk includes Miriam Webster's dictionary and Compton's encyclopedia.
- **Kids Only**-- America Online provides news, sports, encyclopedia searches, computer games, computer art information, various clubs, reviews on TV books and movies, and talk with other kids.
- **Sports**-- Sports information is provided in the areas of sports news, current events, fantasy sports leagues, DataTimes Sports Reports, college teams, and NFL football.
- **The Internet Connection** --America Online created the Internet Center to make the Internet's resources more accessible and easy to use for America Online subscribers.
 - o The Internet Center features graphical icons to provide simple navigation through the complexities of the Internet.
 - o Members can currently browse the World Wide Web, send and receive unlimited amounts of mail through the Internet, participate in all available Usenet newsgroups, search the WAIS and Gopher databases, learn about upcoming features (Telenet & FTP) and participate in discussions about netiquette and other topics in the message board area.

In addition to the content currently available on its on-line service, America Online continues to add informative content through its strategic alliances with information providers as well as through joint ventures with major media companies.

To further stimulate the development of new content, America Online has created the America Online Greenhouse to fund the development of new programming by entrepreneurs. To date, America Online has funded the development of approximately 15 new on-line content developers.

Pricing is based on monthly subscriptions, which are automatically renewed each month; fees are electronically charged to credit cards or debited from checking accounts until a subscriber requests cancellation.

- During fiscal 1995, the average monthly net service revenue per paying subscriber was approximately \$17.10, up from \$15.00 in fiscal 1994.
- The standard monthly membership fee is \$9.95, which includes five hours of access per month. The hourly fee for usage beyond that included with membership is \$2.95.

Internet Access and Service

America Online's goal is to consumerize the Internet by providing simple access to and use of the Internet for members of the America Online service and for users seeking direct access to the Internet.

America Online introduced its Web browser in May 1995, which provides integrated World Wide Web access within the America Online service, and guides members to Web sites based on areas of consumer interest.

America Online has incorporated advanced high-speed compression technology into the browser to improve Web access speed and graphic display performance.

America Online's GNN service, introduced in October 1995, is aimed at the segment of on-line consumers who seek a full-featured Internet-only solution and publishers interested in enhancing their presence on the Web.

- GNN incorporates technologies acquired during the past year, including the ANS network infrastructure, BookLink browser, NaviSoft personal publishing tools, GNN user interface and WebCrawler search engine.
- GNN has local dial availability in more than 600 cities.
- Pricing for GNN provides consumers with free, unlimited usage for the first month. Thereafter, the monthly fee is \$14.95 for 20 hours of daytime or evening use, with additional hours at \$1.95.

Multimedia and CD ROM

Medior, acquired in May 1995, provides multimedia production tools and services. Medior's production studio handles all aspects of interactive content development and design, including research and development, engineering, quality assurance, design and implementation of screen interfaces, 3-D texturing and video, and production services.

2Market offers a hybrid CD ROM and on-line-based interactive shopping service that features goods and services from numerous catalogs and retailers, as well as a one-step connection to the America Online service.

America Online plans to develop additional hybrid CD ROM/on-line content offerings that bring together multimedia presentation and on-line connectivity.

Access and Delivery of Services

America Online has a variety of networking initiatives to redefine the ways in which members access its services.

- The company has contracted with third-party data networks, predominantly Sprint, so that members in cities throughout the U.S. and Canada can dial one of approximately 750 local access numbers to connect to its services.
- The company has launched AOLnet, which is based on a portfolio approach whereby network services are provided by a number of different entities, including Sprint, ANS (acquired by America Online in 1995) and BBN. AOLnet provides members with more reliable, higher speed access and should be easier to expand and upgrade. The ANS backbone network carries daily traffic of more than three billion packets.
- In November 1995, America Online announced AOLGLOBALnet, an international access network for members who travel globally and want to connect to America Online. AOLGLOBALnet is available in more than 130 cities in nearly 50 countries.
- In addition, members in rural areas or members who travel frequently in the U.S. can access America Online through an 800 number.

America Online is investing in developing alternative technologies to deliver its services.

- The company has agreements with several manufacturers of PDAs, including Sony, Motorola, Tandy and Casio, to bundle a palmtop edition of America Online's client software with the PDAs of these manufacturers.
- America Online is currently participating with Viacom, Comcast, Rogers CableSystems, TCI Communications, and Cablevision Systems in cable trials to deliver its consumer on-line services to personal computers via cable networks and has announced that it will support the cable modem platforms of Intel, General Instruments, Scientific Atlanta and LAN City.
- In the paging market, America Online has agreements with AT&T Wireless Services and MobileMedia to provide their paging customers who subscribe to America Online with mobile access to certain America Online services.
- America Online has an agreement with Pacific Bell to deliver America Online's service over ISDN connections in Pacific Bell's service area.

Enterprise Tools and Solutions

America Online offers authoring and publishing tools and services for creating World Wide Web content and developing commercial applications to exploit the potential of the Internet.

NaviSoft, acquired by America Online in November 1994, has developed a collection of client/server products, including Web authoring software (NaviPress) and a commercial Web server (NaviServer). The products are available for Windows, Macintosh and UNIX platforms. America Online will also implement and maintain Web sites for third parties through its NaviService service.

Through ANS, America Online designs, develops and operates high-performance wide-area networks for business, research, education, and government organizations. Through this network, ANS delivers Internet, wide-area network, and virtual private data network services to enterprises.

Customer Services

America Online provides on-line support and telephone support services.

Once a customer subscribes, America Online implements retention marketing programs designed to increase customer loyalty and to maximize customer subscription life. These programs include regularly scheduled on-line events and conferences, on-line promotions of new services and additions of new software programs.

Marketing and Sales

The overall goal of America Online's marketing programs is to increase the visibility of the America Online brand and to make it easy for consumers to try its services.

- America Online attracts new subscribers through independent direct marketing programs, such as direct mail, disk inserts and onsets in publications, advertising and a variety of comarketing efforts.

- The company has entered into comarketing agreements with numerous personal computer hardware, software, and peripheral production companies. These companies bundle America Online software with their products.
- America Online has also entered into comarketing agreements with certain of its media partners and with affinity groups and associations to market directly to and cater to the needs of specific audiences.

Alliances

America Online has allied with more than 300 leading hardware and software vendors to develop new technologies, jointly market products and provide an efficient on-line source of product support to their customers.

- More than 30 personal computer, software, and modem companies, including IBM, Tandy, Lotus and Microsoft, bundle America Online products with their products.
- More than 300 companies use America Online to provide ongoing technical support for their customers.

America Online has a range of content/marketing relationships with media companies that provide content to America Online's services.

Recent alliances include the following:

- In March 1996, America Online announced an alliance with Netscape Communications whereby America Online will license Netscape Navigator client software technology for use in all of its services.
- In March 1996, America Online announced a technology and strategic partnership with Microsoft and agreed to make Microsoft Internet Explorer the standard, built-in Web browser for its customers. Microsoft will give Windows 95 access to the America Online service via a folder on the Windows 95 desktop.
- In March 1996, America Online announced a licensing and development agreement with Sun Microsystems whereby America Online will license Sun's Java technologies, including the Java programming language.
- In March 1996, America Online and AT&T announced that customers of AT&T WorldNet Service will be able to access and sign up to America Online.
- In March 1996, America Online and Apple Computer formed a strategic relationship focused on the distribution of America Online to Apple customers and development of interactive programming and content by Apple. Apple is discontinuing its eWorld on-line service and both companies have agreed to provide easy access and incentive for eWorld users to begin using America Online. America Online has renewed its commitment for development and innovation on the Macintosh platform with new client software and World Wide Web integration.
- In November 1995, Bertelsmann AG and America Online formed an alliance with Deutsche Telekom whereby the parties will swap equity positions in their respective European on-line ventures. In addition, Deutsche Telekom is expected to make a minority investment in America Online through Bertelsmann's agreement to transfer its option to purchase stock of America Online to Deutsche Telekom.
- In November 1995, America Online and Intuit announced a strategic agreement to jointly provide on-line electronic banking to America Online members.
- In September 1995, America Online and Compaq signed a promotion and distribution agreement that includes America Online as the featured consumer on-line services provider preinstalled on Compaq's newest Presario personal computers targeted at the consumer market.
- In September 1995, America Online's Navisoft unit and Macromedia announced they will unite Web site development tools and interactive multimedia tools to bring enhanced content to the World Wide Web.
- In July 1995, America Online announced a partnership with Time Warner Cable to conduct a 500-home broadband trial in Elmira (NY), delivering on-line services over a broadband network.

Competition

Major direct competitors in on-line services include Prodigy (a joint venture of Sears and IBM), CompuServe, AT&T WorldNet, Microsoft Network, and Internet MCI (a service of MCI).

Internet services competitors include NETCOM On-Line Communications Services, Bolt, Beranek & Newman (BBN), Performance Systems International and UUNET Technologies. Internet client/server software competitors include Netscape Communications and Spyglass.

INPUT Assessment

As interactive on-line services have shifted to graphical user interfaces, traditional competitors like CompuServe and Prodigy have struggled with the shift. Consumer migration to Windows has created a tremendous opportunity for America Online to gain market share.

America Online has also staked out a market position in offering services for access to the Internet. It is also planning to extend its platform to support new conduits such as wireless and cable. These new conduits will extend the delivery of America Online outside the traditional public data network environment.

The proliferation of access devices and conduits for on-line services creates uncertainty for market participants and prospective market entrants. America Online is well positioned as a strategic partner to speed market entrance for media companies seeking to leverage their content.

Powerful companies such as Microsoft and AT&T are entering the on-line services market and the challenge for America Online will be to leverage its current subscriber growth and alliances with the media companies.

America Online must add system capacity to assure that its subscribers can readily access the network.

For INPUT Hotline Support, submit e-mail to hotline@input.com

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American Management Systems



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02/25/1998

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Summary Info

Chairman/CEO:	Paul A. Brands
President:	Philip M. Giuntini
Status:	Public
Parent:	
Employees:	8,000 (12/1997)
Revenue:	\$ 1,060.0 mil
Year End	Dec-1998

Key Points

- American Management Systems' (AMS) revenue has increased each year for the last 26 consecutive years.
- AMS' fastest growing vertical business is telecommunications, which increased 70% during 1995, after increasing 55% during 1994 and 27% during 1993.
- AMS' client/server system development business increased 54% to \$200 million during 1995, after increasing 44% to \$130 million during 1994 and 55% to \$90 million during 1993. AMS has also revamped its core software modules to support object-oriented programming and client/server platforms. The company projects \$280 million to \$320 million in client/server revenue for 1996.
- Revenues in Europe increased 83% to \$139 million during 1995, with new clients added in the financial services and telecommunications markets. AMS now has offices in ten European cities.
- In June 1995, AMS announced the formation of a new practice to address the information needs of major hospitals, health networks, and managed-care entities.

Company Description

AMS, founded in 1970, provides business and information technology consulting, including business reengineering, change management, systems integration, and systems development (including reusable and custom software) and systems implementation services to many of the country's largest corporations, hundreds of city and state governments and the federal government, and large international organizations.

Since 1982, AMS has specialized in providing services to large telecommunications and financial services firms, federal government agencies, state and local governments, and education as follows:

- Telecommunications firms: AMS provides systems consulting and integration services for order processing, customer care, billing, accounts receivable, and collections for local exchange and interexchange carriers and for cellular telephone companies. Most of AMS' work involves developing and implementing customized capabilities using AMS' applications software products as a foundation.
- Financial services institutions: AMS provides information technology consulting and systems integration services to money center banks, major regional banks, insurance companies, and other large financial services firms. AMS specializes in corporate and international banking, consumer credit management, global custody and securities systems, and bank management information systems.
- Federal government agencies: AMS provides consulting, computer systems integration, business process reengineering services, systems operations, and system development and implementation services to civilian and defense agencies and aerospace companies. AMS' work for defense agencies often involves expertise in engineering and logistics.
- State and local governments and education: AMS provides systems consulting, integration services, and applications software products to state, county, and municipal governments for financial management, revenue management, human resources, social services, and public safety functions. The company also markets services and applications software products to educational institutions.
- Other: AMS provides various professional, outsourcing, and systems integration services for large firms in other industries, including pharmaceuticals and health care.

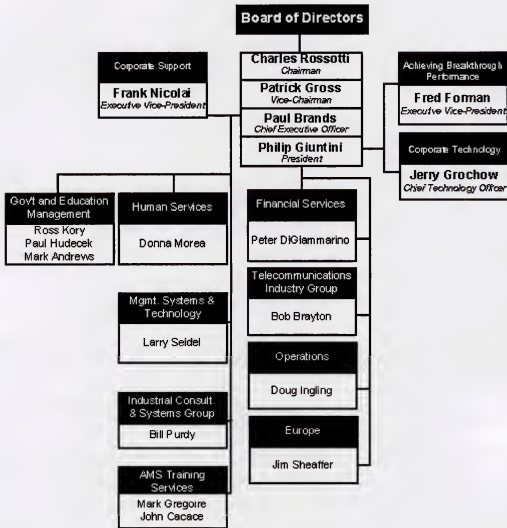
Operations and Structure

AMS' current organization is shown in Exhibit A.

In September 1993, AMS completed the reorganization of its top management structure, begun in late 1992 with the election of Paul A. Brands as chief executive officer.

AMS is currently organized by vertical industry lines of business--Telecommunications, Financial Services, Federal Government, State and Local Government and Education, Pharmaceuticals, and Health Care Technology Services.

Exhibit A American Management Systems, Inc. Organization



The company currently has 49 offices worldwide, including 39 in North America and 10 in Europe, with an additional office opening in Italy in 1996.

U.S. offices are in Albuquerque (NM); Arlington, Fairfax, Falls Church, Norfolk, and Richmond (VA); Atlanta (GA); Austin and Houston (TX); Birmingham (AL); Boston (MA); Charlotte (NC); Chicago (IL); Fairborn (OH); Jackson (MS); King of Prussia (PA); Lakewood (CO); Lexington Park (MD); Los Angeles, Redwood City, Sacramento, San Diego, and Walnut Creek (CA); Manchester and New Haven (CT); Minneapolis (MN); New Orleans (LA); New York and Pearl River (NY); Oklahoma City (OK); Portsmouth (NH); Providence (RI); Roseland (NJ); Sarasota (FL); Seattle (WA); and Topeka (KS).

Other North American offices are in Mexico City (Mexico), and Montreal and Ottawa (Canada).

U.S. subsidiary locations are as follows:

- AMS Operations Corporation, Inc. is in Lakewood (CO).
- AMS Technical Systems, Inc. is in Fairfax (VA).
- AMS Training Services (formerly Data Base Management Inc.) and AMS Courseware Developers are headquartered in Manchester (CT) and provide consulting and training services.

International subsidiary locations are as follows:

- AMS Management Systems Deutschland GmbH is located in Frankfurt and serves as the European headquarters. Offices are also in Dusseldorf, Munich and Stockholm.
- AMSY Management Systems Netherlands B.V. is in the Hague.
- AMS Management Systems Europe, S.A./ N.V. is in Brussels (Belgium).
- AMS Management Systems U.K. Limited is in London. A branch office is located in Lisbon (Portugal).
- Nordic Business Management Systems AB is in Stockholm (Sweden).
- AMS Management Systems (Switzerland) AG is in Bern.
- AMS Management Systems España, S.A. is in Madrid.
- AMS Management Systems Canada, Inc. is in Ottawa. An additional Canadian office is in Montreal.
- AMS Management Systems Mexico S.A. de C.V. is in Mexico City.

Company Strategy

The fundamentals/core strengths of AMS' business include:

- Providing business/technology analysis and consulting
- Developing, integrating and implementing computer-based systems
- Developing reusable applications for business functions
- Managing long-term client relationships

AMS derives approximately 87% of its business each year from clients with whom it worked in the previous year.

AMS' overall strategy for the 1990s includes:

- Specializing by industry, business function, and client size
- Managing and building on long-standing relationships with major clients in vertical markets
- Acting as a full-service business partner for clients in AMS' vertical markets
- Taking responsibility for results—not simply providing resources
- Forming alliances and partnerships with clients and other firms

AMS is targeting 20% annual growth in service and product revenue for the 1990s. AMS' growth strategy includes:

- Selling existing capabilities within existing vertical market segments
- Growth within existing vertical markets by expanding into additional market niches
 - Along functional lines, examples include corporate risk management, STRATA (a decision management system), Encounter (a point-of-contact origination utility), and CARE (Customer Analysis and Relationship Enhancement) programs in financial services markets; financial systems in the telecommunications market; the ClaimsFlo program in insurance; criminal justice and human services systems in state and local government; sponsored research programs for colleges and universities; procurement support, activity-based cost accounting, BPR, and imaging systems for federal civilian agencies; and intelligence and claims management systems for federal defense agencies.
 - Along technology lines, examples include Internet technology, object technology, client/server, imaging and workflow, graphical user interfaces, and mobile computing.
- Continued expansion in Europe, by increasing staff from 420 to more than 700, increasing offices from eight to 10, and revenue growth of 83% to over \$139 million in 1995. Long-term growth markets in Europe include financial services (25%) and telecommunications (30%).
- Pursuit of selected opportunities that require combined expertise from two (or more) vertical market segments. Examples include federal financial systems and state environmental programs, telco risk management, revenue management systems for state and local governments and imaging for financial institutions.
- Periodically starting into a new vertical market segment as appropriate (e.g., the pharmaceutical industry and health care markets)

Long-term U.S. growth targets for AMS' vertical markets include telecommunications (30%-40%), insurance (20%-25%), financial services (20%), state and local government (20%), colleges and universities (20%), federal civilian (15%-20%), federal defense (5%-10%) and other (up to 5%).

In the area of AMS' client/server technology focus, the company's strategy is to:

- Deliver client/server solutions with integration to legacy systems
- Design advanced user interfaces through user-centered methodologies
- Use object-oriented techniques through tools and analysis
- Create open systems by capitalizing on standards

AMS has established six Knowledge Centers, each of which has expertise in AMS' core disciplines. The AMS Center for Advanced Technologies, an applied research lab, is dedicated to the practical application of advanced information technologies, including client/server, object technology, mobile computing, Internet and electronic commerce, performance measurement, collaborative work environments, and data management.

Financials

AMS' 1995 revenue reached \$632.4 million, a 38% increase over 1994 revenue of \$459.9 million. Net income to common shareholders was \$29.1 million in 1995, compared to \$23.1 million in 1994. A five-year financial summary follows:

American Management Systems Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$632.4	\$459.9	\$364.0	\$332.5	\$284.4
• Percent change from previous year	38%	26	9%	17%	9%
Income before taxes	\$49.8	\$39.5	\$30.7	\$29.4	\$20.3
• Percent change from previous year	26%	29%	4%	45%	15%
Net income to common shareholders after effect of accounting change (a)	\$29.1	\$23.1	\$17.0	\$17.6	\$11.1
• Percent change from previous year	26%	36%	N/A	(c) 59%	17%
Net earnings per share (b)	\$0.72	\$0.60	\$0.46	\$0.50	\$0.32
• Percent change from previous year	20%	30%	N/A	(c) 56%	14%

(a) Includes dividends and accretion on Series B preferred stock of \$266,000, \$805,000, \$1.5 million, and \$1.5 million in 1994, 1993, 1992, and 1991, respectively.

(b) Restated to reflect a 3-for-2 stock split effective January 5, 1996.

(c) Includes a \$1.6 million (\$0.05 per share) cumulative effect from a change in the method of accounting for income taxes.

A five-year summary of source of revenue by vertical market is shown on the following page.

- In the telecommunications market, services and products revenue increased 70% over 1994. More than 79% of this increase was attributed to business with non-U.S. clients, which increased 105% during 1995 to \$129 million, up from \$61.6 million in 1994. The telecommunications practice accounted for 37% of AMS' revenue in 1995. Business in this market is characterized by large projects, with relatively few clients. Approximately 90% of the 1995 service and product revenue in this market came from work with 12 clients. For 1996, AMS expects the annual growth rate in this market will be lower than that for 1995, but greater than the company's overall growth rate.

American Management Systems
Five-Year Source of Revenue by Target Market
(\$ Millions)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Services and application product revenue					
Telecommunications firms	\$205.2	\$120.6	\$77.8	\$61.2	\$32.4
- Percent change from previous year	70%	55%	27%	89%	3%
Financial services institutions	\$131.3	\$91.5	\$59.9	\$57.1	\$49.7
- Percent change from previous year	43%	53%	5%	15%	(6%)
Federal government agencies	\$95.8	\$87.5	\$91.6	\$89.8	\$75.2
- Percent change from previous year	9%	(4%)	2%	19%	19%
State and local government and education	\$95.9	\$81.6	\$65.9	\$59.9	\$52.5
- Percent change from previous year	18%	24%	10%	14%	11%
Other corporate clients	\$33.3	\$27.6	\$26.4	\$27.5	\$36.6
- Percent change from previous year	21%	5%	(4%)	(25%)	11%
Subtotal	\$561.5	\$408.8	\$321.6	\$295.5	\$246.4
Reimburse expense revenue	70.9	51.1	\$42.4	\$37.0	\$38.0
Total	\$632.4	\$459.9	\$364.0	\$332.5	\$284.4

- In the financial services institution market, 1995 services and products revenue increased 43% compared to 1994, due principally to build-ups in business with clients who started projects in the second half of 1994. Business with non-U.S. clients accounted for approximately 28% (\$37 million) of the revenues of this market. For 1996, AMS expects service and product revenue from this market to increase at rates in line with the company's overall revenue growth.
- In the federal government market, 1995 services and products revenue increased 9%. Business with U.S. clients decreased from \$87.2 million in 1994 to \$82.4 million in 1995. As expected, revenue from foreign government defense agencies was \$13.4 million, up significantly from \$0.3 million in 1994. AMS expects service and product revenue in this market to increase approximately at the same rate during 1996.
- In the state and local government and education market, 1995 services and products revenue increased by 18% over 1994. Increases were fueled by several large contracts with state taxation departments seeking to make substantial improvement in collecting delinquent taxes. AMS expects revenue from this market to increase during 1996 at rates in line with the increase in the company's overall service and product revenues.
- Services and products revenue from other corporate clients increased 21% over 1994. The largest contributor to the 1995 increase and projected 1996 increase is in AMS' business with health care institutions, where 1995 revenues exceeded \$13 million.

Interim Results

Revenue for the three months ending March 31, 1996 reached \$181.4 million, a 34% increase over \$135.8 million for the same period in 1995. Net income reached \$6.6 million, compared to \$4.9 million for the same period a year ago.

Service and products revenue increased in all market segments, led by telecommunications (increasing 51%), state and local

government and education (increasing 41%), and financial services (increasing 34%).

Market Financials

A three-year summary of AMS' source of revenue is shown on the following page.

AMS has supplied complex systems solutions for 41 of the 50 largest U.S. banks; all top ten retail banks; four of the top five Canadian banks; five of the 10 largest insurance companies; four of the five largest energy firms; 100 federal civilian and defense agencies; more than 50 of the Fortune 100; over 200 state, city and county governments, school districts, colleges and universities; and telecommunications carriers.

AMS' target markets for its products and services include the following:

- The 300 largest banks and other large financial services firms
- Civilian and defense government agencies
- Over 250 of the largest state agencies and local governments
- Over 15 of the largest local education agencies
- The 50 most complex research institutions and universities
- The 300 largest four-year colleges and community colleges
- The 150 largest energy firms
- The largest global telecommunications firms
- The largest pharmaceutical companies

American Management Systems Three-Year Source of Revenue Summary

Target Market	Fiscal Year		
	1995	1994	1993
Service and Product Revenue:			
Telecommunications firms			
Financial services institutions	32%	26%	21%
Federal government agencies	21%	20%	17%
State and local governments and universities	15%	19%	25%
Other corporate clients	15%	18%	18%
Reimbursed expense revenue	5%	6%	7%
	11%	11%	12%
Total*	100%	100%	100%

* Differences due to rounding.

Geographic Markets

Approximately 75% of AMS' 1995 revenue was derived from the U.S. and 25% from international sources (including export sales).

A three-year summary of geographic sources of revenue is shown below.

American Management Systems Three-Year Geographic Source of Revenue Summary (\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$462.4	73%	\$367.8	80%	\$311.2	85%
International (a)	170.0	27%	92.1	20%	52.8	15%
Total	\$632.4	100%	\$459.9	100%	\$364.0	100%

(a) Includes export revenue of approximately \$98.6 million in 1995, \$39.6 million in 1994, and \$19.5 million in 1993.

Employees

As of December 31, 1995, AMS had approximately 5,400 employees, including 4,849 exempt staff and 551 support staff.

During 1995, AMS hired 1,800 new consultants, including 340 in Europe.

The company currently has approximately 6,000 employees.

Key Products and Services

AMS' services and products revenue is recognized as follows:

- For large professional services contracts, AMS generally contracts either on the basis of reimbursement of costs plus a fixed fee, a fixed or ceiling price for each phase, unit rates for time and materials used, or for services sold at unit prices. In most cases, AMS receives monthly or per-deliverable progress payments.
 - Most of AMS' revenue is from projects performed under cost-plus contracts, or under fixed- or ceiling-price contracts in which AMS recognizes revenue based on the percent of work completed. Many of AMS' projects require six or more months to complete.
 - In September 1990, AMS was awarded a license by the Carnegie Mellon University Software Engineering Institute (SEI) for the Software Process Assessment methodology. The license enables AMS to offer software assessment as an additional service to its clients.
- Revenue from licenses for off-the-shelf packaged applications, for which delivery has occurred, is recorded at the time the contract is signed, less an amount approximately equal to costs required to complete the contract, which is later recognized on a percent-of-completion basis.
 - AMS is committed to IBM's AD/Cycle application development strategy and is working with IBM to develop versions of its applications for IBM's System Application Architecture (SAA).
 - AMS has made a major commitment to improving the productivity and quality of its work for clients using its Life-cycle Productivity System (LPS), a proprietary combination of third-party and AMS-developed applications. The LPS methodology covers all the areas that an organization needs to establish business objectives, to identify whether application packages or other reusable applications can meet most objectives and to determine system adaptations to meet specific business and technical needs.
 - AMS' CORE 2000 Foundation Software is an integrated suite of reusable building blocks for designing, developing and implementing business systems. CORE 2000 uses leading-edge technologies such as client/server, object technology, advanced user interfaces, distributed data, and open systems.
 - Software applications available from AMS are presented in Exhibit B.

Exhibit B

AMS Applications Software Products

Application	Description	Number Installed	Operating Environment
Consumer Financial Services			
CreditLine			
- Automated Credit Application Processing System (ACAPS)®	Customer credit application processing system	80	IBM 43XX, 30XX, ES/9000
- BureauLink®	Credit bureau request processing	95	IBM 43XX, 30XX, ES/9000
- Advanced Consumer Lending System (ACLS)	Loan processing system	22	IBM 43XX, 30XX, ES/9000
- Computer Assisted Collection System Plus (CACSP+)	Collection management system	190	IBM 43XX, 30XX, ES/9000, AS/400
- Behavior Scoring	Risk management decision support	1	IBM 43XX, 30XX

- STRATA™	Decision management	New	IBM 370, PS/2
- Collateral Asset Tracking System (CATS)	Integrates accounting, analysis, and custody functions	1	Database Server: Sun Sparc20 UNIX, Oracle 7.1; Client Side: PC, Windows 3.1, PowerBuilder (see CATS)
Collateral Analysis System	Reviews and analyzes customers' collateral documents on site and on the road	1 (as part of CATS)	
Custodial Services System (CSS)	Facilitates storing, tracking and fee assessments of customer-held mortgages	1 (as part of CATS)	(see CATS)
- Encounter	Customer-focused, risk-based credit granting system		OS/2, UNIX, AMS' CORE 2000
- Collections Management Systems (CMS)	Organizes and schedules collections activities	40	VSAM
Claims Processing			
- QuickStart for Data Entry™	OCR/ICR and image enabled application for data entry of medical, hospital, and dental claim forms	4	Client/server: Windows 3.1, Windows 95, NT, Novell and UNIX servers; Sybase, Oracle, ODBC

Application	Description	Number Installed	Operating Environment
Corporate Banking			
Letter of Credit System (LCS)	Letters of credit, reimbursements, Banker's acceptance and purchase order processing	29	IBM 9370, 43XX/OS/MVS, IMS, OS/2; PC MS-DOS; AT&T UNIX System V
Customer Entry System (CES)	Customer interface to LCS	20	IBM 43XX/OS/MVS, IMS; PC MS-DOS; OS/2
Collection Processing System (CPS)	Automation for clean and documentary collections	18	IBM OS/MVS, VSAM, IMS; PC MS-DOS; OS/2
Secured Electronic Main System (SEMS)	Bank and customer message interface	9	IBM 9370, 43XX/OS/MVS, CICS, VSAM, IMS
ITM Telecommunications Module	SWIFT, cable/Telex and fax interfaces	16	IBM 9370, 43XX/OS/MVS, VSAM, IMS; OS/2
AMS TradeLine	Letters of credit and collections processing for international banks	24	IBM OS/2 V1, MVS, MVSXA/ESA, OS/2
AMS TradeLine/Client Server™	Graphical user interface to TradeLine	5	OS/2, AT&T UNIX System V
AMS Access	Interactive customer interface architecture	3	OS/2, Windows
Investments Industry			
Securities Lending & Borrowing System	Securities lending and borrowing for debt and equity	(In devel.)	UNIX, Client/server
Government Systems			
AMS ADVANTAGE® Series			
- ADVANTAGE Financial™	Integrated suite of products for government financial management—budgeting, accounting, treasury, material, operations management	200+	IBM 390, MVS, VSE; IBM RS/6000, AIX; HP 9000, UX
- ADVANTAGE HR™	Integrated suite of products for government payroll and human resource management	50+	IBM 390, MVS, VSE; IBM RS/6000, AIX; HP 9000, UX

- ADVANTAGE Revenue™	Integrated tax administration applic., including taxpayer ID, returns, processing, revenue accounting, correspondence, audit*, enforcement* (*standalone modules available)	10	IBM 390, MVS (only Collections); IBM RS/6000 AIX; HP 9000, UX; Windows NT
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Application	Description	Number Installed	Operating Environment
Education Systems			
AMS ADVANTAGE® Series			
- ADVANTAGE Financial™	Integrated suite of products for local and higher education financial management, including budgeting and accounting, treasury, material, and operations management	70+	IBM 390, MVS, VSE; IBM RS/6000, AIX; HP 9000, UX
- ADVANTAGE HRT™	Integrated suite of products for local and higher education payroll and human resource management, including benefits, position control, and applicant tracking	20+	IBM 390, MVS, VSE; IBM RS/6000, AIX; HP 9000, UX
Telecommunications Industry Systems			
TieLine	Customer contact systems for fixed-wire operators		IBM 370, 43XX, 30XX; MVS/ESA, IMS/DB/DC
- CAMS	Customer Account Management System	6	IBM 370, 43XX, 30XX; MVS/ESA, IMS/DB/DC
- MPS	Message Processing System	7	IBM 370, 43XX, 30XX; MVS/ESA, IMS/DB/DC
- SOMS	Service Order Management System	2	IBM 370, 43XX, 30XX; MVS/ESA, IMS/DB/DC
- UP	Usage Pricing	5	IBM 370, 43XX, 30XX; MVS/ESA, IMS/DB/DC, UNIX
Mobile 2000	Customer management and billing system for wirefree operators	3	IBM 3090, MVS/ESA, DB2, CICS, ES/9000
Spectrum2000	Customer management and billing system for wireless network operators	2	VAX Alpha, UNIX
Passport	Customer care GUI system that interfaces to wireless network operator's legacy billing system	1	SUN Solaris, UNIX
Provis	Standalone commissions system for the wireless network operator	1	SUN Solaris, UNIX

AMS has six Knowledge Centers, each of which is a community of AMS people with expertise in AMS' core disciplines.

- Leveraging existing knowledge, the Knowledge Centers enable project teams to share and advance knowledge, experience, methodologies, tools, techniques, and technologies to deliver products and services to clients.
- AMS has Knowledge Centers for Advanced Technologies, Business Process Renewal, Systems Development and Information Technology Management, Organization Development and Change Management, Decision Analytics, and Client Relationship and Project Management.

In the discussion that follows, AMS' products and services will be described in relation to the company's target markets.

Telecommunications

AMS provides professional services and applications to large local telephone companies, interexchange carriers, international carriers and cellular telephone companies. Services and application revenue from this market reached \$205.2 million in 1995, a 70% increase over \$120.6 million in 1994.

- Applications (see the exhibit) support order processing, message processing, billing, customer care, accounts receivable and collections.
- About 63% (\$129 million) of telecommunications' 1995 business was international. The unit is leading AMS expansion in Europe. Initiatives include graphical user interfaces, client/server, distributed processing, utilization of object-oriented technology, additions of Spectrum2000 the GSM version, and expansion of domestic functionality with NYNEX.
- Initiatives include joint development of a credit risk management system with BellSouth; international opportunities with Dutch PTT and Telia AB (Sweden); and transforming to industry standard, advanced building-block architecture.
- AMS is developing a common customer care and billing system for a consortium of PTT Telecom Netherlands, Telia AB, and Swiss Telecom PTT.

AMS has implemented versions of its TieLine applications for companies such as AirTouch, Alberta Government Telephones, ALLTEL, BellSouth, Cellnet, Contel, Mannesmann Mobilfunk, NewVector, Pacific Telecom, Sprint, Stentor, and U S WEST.

Wireless

Mobile2000 is a customer management and billing system for the cellular telephone industry, jointly developed by AMS and NYNEX Mobile Communications.

AMS markets and supports Mobile2000 worldwide and provides professional consulting services.

- AMS is implementing Info-2000, a comprehensive customer management and billing system, at Bell Atlantic NYNEX Mobile. The system is the foundation for Mobile2000.
- In October 1995, AirTouch Communications announced the development and implementation of Passport, a GUI front-end interface to AirTouch's existing customer care and billing system, PRISM. Passport was designed to enable reengineered business processes in AirTouch's call centers. AMS is now marketing Passport to other mobile communication carriers.
- In February 1995, AMS was awarded a \$10 million contract to develop a customer service and billing system based on Mobile2000 for Radiomovil DIPSA S.A. (Telcel), the leading cellular telephone service provider and operator of the only nationally integrated wireless network in Mexico. The system was successfully implemented in March 1996.
- AMS has developed and implemented customer care and billing systems for many other of the world's leading cellular network operators, including SNET Cellular, Airtel (Spain), Belgacom (Belgium), Mannesmann Mobilefunk (Germany), Telcel (Mexico), and Telecel (Portugal).

Financial Services (Banking and Insurance)

AMS provides business and information management consulting and system development services and, as part of those services, also provides several packaged applications to large international banks and to U.S. money center and regional banks and insurance companies.

- Services and products revenue from this segment were \$131.3 million in 1995, a 43% increase over \$91.5 million in 1994.
- Financial industry clients include all of the top 10 U.S. banks, five of the six major Canadian banks, five of the 10 largest U.S. insurance companies, seven leading securities firms, and three of the top five brokerage firms. In Europe, clients include the top five banks in Germany, the three largest Belgian banks, the three largest Swiss banks, and four of the top 10 banks in the U.K. In Australia, three of the top five banks are AMS clients, as are two of the top five finance companies. Additional clients include more than 150 other banks and consumer finance companies around the world.

AMS consultants assist in all phases of system planning and project management, including strategic systems planning, business process redesign, business-system concept definition, software evaluation, risk management consulting, credit and behavior scoring model development and implementation, custom system design, system implementation, packaged system customization, operations and efficiency analysis, and training documentation.

- AMS' strategy for the finance industry is to accelerate growth in the areas of risk management (consumer and corporate), customer relationship management, technology (client/server, imaging), and business transformation.
- The target market for AMS' consumer credit management applications and services is organizations that extend credit to consumers and businesses, including financial institutions, retailers, telecommunications firms, government agencies, health care providers, and utility companies.
- For global wholesale processing services, the target market is the leading U.S. and international financial institutions. In the area of wholesale banking, AMS is assisting banking clients to connect electronically with their major customers.

In March 1996, AMS and The Bank of Montreal announced they would codevelop an interactive lending decision system for mortgages, credit cards, and student lines-of-credit through the World Wide Web.

In August 1995, AMS announced the implementation of its AMS TradeLine/Client Server trade services platform at Comerica Bank. Comerica has also partnered with AMS to develop Comerica Gateway, a treasury management tool for corporate customers using Windows-based software and graphical user interfaces.

Other AMS clients in the financial services area include Bank of America, Wells Fargo Bank, Bayerische Vereinsbank, American Express, AT&T, Banc One, Bank of Montreal, Barclays Bank, Barnetts Bank, the Royal Bank of Scotland, and Citibank.

In the area of insurance, AMS specializes in operations reengineering and underwriting systems for life insurers. The firm served as integrator for Mutual of New York's CLUES expert underwriting system. In addition, AMS worked with Mutual Benefit Life in developing a new business environment.

- AMS has been exclusively designated a "preferred integration partner" by the Lincoln National Corporation, a vendor of expert underwriting systems to the life insurance industry.
- Other clients include Provident Insurance, Equitable, PNC, KeyCorp, and Aetna.
- AMS has an alliance with AICorp, a provider of expert system development software, to provide training and consulting services to insurance companies.

Federal Government

AMS provides professional services, processing and systems operations services to federal government civilian and defense agencies. Services and products revenue from this market was \$95.8 million, a 9% increase over \$87.5 million for 1994.

- Service and product revenue from U.S. federal civilian agencies was \$55.3 million in 1995, compared to \$40.6 million in 1994, \$54 million in 1993, \$51.6 million in 1992, and \$44.9 million in 1991.
- Service and product revenue from federal defense clients was \$63 million in 1995, compared to \$32.5 million in 1994, \$37.6 million in 1993, \$38.2 million in 1992, and \$30 million in 1991. In this shrinking overall market, AMS management believes modest growth can be obtained by targeting specific niches (intelligence, depot consulting, surface ship maintenance, health care).

Defense Agencies--Professional services are provided to all major Army, Navy, Air Force and Marine Corps organizations in the areas of information systems and technology applications. AMS also provides services in support of logistics and maintenance engineering; activity-based costing; industrial operations improvements and business process reengineering; total quality management implementation services; and environmental systems.

- Information systems work includes consulting and systems development for executive decision support systems, strategic systems planning, EDP acquisitions, support, quality assurance, independent verification and validation (IV&V), and life-cycle management documentation support. Projects include distributed processing, information engineering/information systems architectures, the installation of LANs and UNIX-based systems, and the application of document imaging and expert systems.
- In the field of engineering and logistics support for Navy surface ships, key projects include: devising new maintenance procedures based on condition of equipment, employing automated systems for test and diagnostic functions, and analyzing trade-offs between maintenance priorities and available resources.
- AMS is also involved in projects to improve headquarters and field logistics management functions, including the development of decision models and performance standards for maintenance, supply, and other logistics elements.
- AMS has provided technical, functional, engineering and management support to help reengineer the business processes of the U.S. Navy's shipyards. AMS is now designing, developing, and implementing the reengineered business processes and the technology infrastructure to support those processes.
- Under a subcontract with Science Applications International, AMS is providing systems engineering technical assistance to the Center for Information Management in the Defense Information Systems Agency office. The five-year contract has a potential value to AMS of between \$12 million and \$15 million.
- In April 1995, AMS was awarded a contract with the Office of Assistant Secretary of Defense for Health Affairs, potentially worth more than \$320 million over five years, to build and support information systems for U.S. military medical facilities worldwide.
- As part of its niche strategy for growth, specific initiatives include the following:
 - AMS is providing strategic, operational, and systems consulting for depot operations. AMS has won \$44 million in contracts for naval depots through 1997 and is targeting other DoD services through the Joint Logistics Systems Command. AMS is also expanding maintenance consulting into the nuclear utilities market, with four under contract.
 - AMS is providing a range of information consulting and financial systems to national intelligence agencies. AMS has provided strategic, technical, and systems consulting for Navy surface ships and has won a \$57 million contract through 1997.
 - AMS is expanding into closely related industries, providing facilities management systems to utilities and universities to improve plant maintenance.

Civilian Agencies--AMS currently provides professional services to over two dozen federal civilian agencies under various basic ordering agreements, requirements-type contracts, and ADP schedules.

- Services span the full system development life cycle, from systems planning and technology assessment through requirements analysis, design, development, and implementation. AMS also performs general management consulting assignments, provides quality improvement consulting and training, and furnishes independent validation and verification services.
- Advanced methodologies applied for civilian agencies have included Joint Application Design (JAD) techniques, information engineering, business process redesign, and computer-assisted software engineering.
- Key technology initiatives include distributed, client/server financial management systems, client/server administrative systems, and reengineering of business processes and workflows, including integration of image technology in administrative and programmatic workflows and client/server tools for performance measurement and cost management.
- Areas of specialization include office automation, telecommunications, financial accounting, payroll/personnel, regulatory operations, and administrative applications.

AMS' Federal Financial System (FFS), a large-scale financial accounting application for federal agencies, has been implemented in 38 agencies.

- Recent extensions to the FFS product line include a microcomputer-based version for local site financial accounting, the development of a new module for managing relocation and moving expenses, and expanded budget preparation capabilities.
- New FFS clients added in 1995 and 1994 include the U.S. Department of Veterans Affairs, the U.S. Department of Housing and Urban Development, and the Library of Congress.
- AMS and Digital jointly market FFS accounting software for Digital VAX systems to the federal government.

AMS provides systems operations services to several agencies, including developing and operating systems customized to federal agency requirements. AMS also participates in the GSA teleprocessing services program, under which agencies can purchase processing services from information services vendors.

State and Local Government/Education

AMS provides systems integration services, application solutions, and professional services to state and local governments, local school districts, and colleges and universities. Services and products revenue from this market reached \$95.9 million in 1995, an 18% increase over \$81.6 million in 1994.

- Services and products revenue from state government clients was \$46 million in 1995, compared to \$35 million in 1994, \$22 million in 1993, \$13.4 million in 1992, and \$12.1 million for 1991. Key growth areas for 1995 included human services and child support, state revenue and tax collection, and state departments of transportation projects.
- Services and products revenue from local government clients was \$28.4 million in 1995, compared to \$27 million in 1994, \$25 million in 1993, \$22.2 million in 1992, and \$20.6 million for 1991. Key growth areas for 1995 included client/server-based financial and human resources projects.
- Services and products revenue from education clients was \$17 million in 1995, compared to \$14 million in 1994, \$15 million in 1993, and \$22.4 million in 1992. Key growth areas for 1995 included client/server-based financial and human resources products for local school districts and higher education.
- Services and products revenue from Canadian federal and provincial governments was \$4.7 million in 1995, compared to \$6 million in 1994, \$3.4 million in 1993, and \$2 million in 1992.

Ongoing projects in this market include 17 statewide financial systems, 41 state agency systems, 6 of the top 19 cities, 15 of the top 50 counties, 11 Canadian Federal Ministries, 8 of the top 100 large school districts, and 15 of the top 150 major universities.

Services and products are marketed to state and local governments and local education agencies for financial, human resources, and tax management applications.

- In November 1995, AMS began development of an automated statewide information system for the Rhode Island Department of Children, Youth and Families. During 1994 and 1995, AMS was also selected for major new projects in child/welfare, child support and other human services program areas with 11 new clients, including the States of Connecticut, Arizona, Alaska, Oklahoma, and Ohio.

Systems for colleges and universities focus on financial, human resource, student and alumni, and fund-raising information management systems. During the past 14 years, AMS has served the needs of more than 100 complex institutions in the U.S. and Canada.

- Examples of current and recent clients include Duke University, Indiana University, Johns Hopkins University, Northwestern University, Purdue University, Stanford University, and the University of California at Davis.

Other Market Areas

In June 1995, AMS formed a health care technology services practice to provide a range of services and products for major

In June 1995, AMS formed a health care technology services practice to provide a range of services and products for major hospitals, health networks, and managed-care entities.

- The practice offers specialized services in strategic systems planning, document imaging and workflow applications, client/server software development, hospital information systems consolidation, and clinical data integration and access.
- In recent years, AMS has provided information technology expertise to hospitals, state hospital associations, insurers, other commercial health care organizations, a nationwide organ sharing network, and the U.S. Department of Defense managed-care programs.
- AMS' health care projects have included strategic information systems planning and development, decision support systems, customer service applications, groupware-based systems, claims processing applications, financial accounting systems, and pharmaceuticals billing systems.
- AMS also provides two client/server-based health care document imaging solutions using imaging platforms supplied by FileNet Corporation. PatientLink is for patient admitting, patient accounting, and customer service. RecordLink electronically stores, retrieves, and distributes patient information.
- AMS' health care practice reported revenue of \$13.3 million in 1995.
- Health care clients include Memorial Healthcare System, Birmingham Hospital, and the U.S. Department of Defense.

AMS has completed over 30 document-imaging projects, including systems integration and studies. AMS has implemented large-scale imaging solutions using hardware supplied by IBM, FileNet, LaserData, and other vendors. These projects have been performed for government agencies, financial services and insurance firms, public utilities, hospitals, and transportation companies.

Since 1972, AMS has provided processing services to dozens of trade associations and membership organizations, including the Association of Flight Attendants, the National Alliance of Business, and the AARP. Membership accounting, billing, payroll, and related services are provided via the Arlington data center.

Through AMS Training Services and AMS Courseware Developers, AMS provides consulting and training services to Fortune 500/50 industrial companies, banks and insurance companies, and government agencies.

- AMS Training Services specializes in the design and development of applications systems using client/server and CASE technologies and specialized DB/DC software such as IMS, CICS, DB2, and SQL. AMS Training Services also provides system programming, DA, DBA, and JAD technical support.
- AMS' 130-course training curriculum uses interactive machine workshops and addresses such areas as client/server, CASE (ADW, IEF, Excelerator, APS and CSP), Systems Analysis and Design, DB2, SQL/DS, IMS, CICS, ORACLE, SAA, and Expert Systems and Management Training for IS professionals.
- AMS Courseware Developers specializes in the development of custom computer-based training (CBT) and multimedia to enhance the performance of users in large organizations.

Clients

Long-standing AMS clients include the EPA (1972), New York City (1975), the U.S. Navy (1976), United Technologies (1976), Baker and Taylor (1981), American Express (1982), Bank of Montreal (1983), AT&T (1983), Bank of America (1984), Health and Welfare Canada (1985), the State of Massachusetts (1985), Los Angeles County (1986), the IRS (1986), Sprint (1987), and Bell Atlantic (1989).

Marketing and Sales

Marketing is done principally by the senior staff (executive officers, vice presidents, senior principals and principals) and by a small number of full-time salespersons for each large market.

In the government markets, AMS replies selectively to requests for proposals, concentrating on those closely related to previous work done for the same or similar customers.

Alliances

AMS has technology partnerships with a number of vendors, including GRID Systems, Centura Software Corporation (formerly Gupta Technologies), IBM, Intersolv, Lotus, Microsoft, Neuron Data, Novell, Oracle, ParePlace Systems, Powersoft, Sybase and Informix Software. Under these partnerships, AMS works with vendors to bring specialized capabilities to client projects (e.g., object-oriented programming, client/server platforms, etc.).

In August 1995, AMS announced a business partner agreement with Lotus under which AMS will offer Lotus Notes products and related application design and development services to large enterprises nationwide.

AMS also has a number of equity partnerships in specialized firms:

AMS also has a number of equity partnerships in specialized firms:

- Advantage KBS, based in New Jersey, is a consulting company specializing in knowledge-based systems. AMS has a 10% equity interest in Advantage KBS.
- Knowledge Systems Corporation, based in North Carolina, provides training and consulting on object technology. AMS has a 14% equity interest in Knowledge Systems.
- Tiburon, Inc., based in California, provides public safety and criminal justice applications. AMS has an approximately 18% equity interest in Tiburon.

Competitors

Major competitors by markets served include the following:

- Financial services institutions--ALLTEL Information Services (formerly Systematics), Fair Isaac, and Shaw
- Federal government agencies--"Big 6" firms and various systems integrators
- State and local government/local education agencies--KPMG, D&B Software, Oracle, and PeopleSoft
- Colleges and universities--Systems & Computer Technology, Oracle, PeopleSoft, the "Big 6," and IBM
- Telecommunications--Andersen Consulting and Cincinnati Bell Information Systems

Assessment

AMS considers its strengths to include the following:

- AMS establishes long standing partnerships with its clients (the company derives more than 87% of its business each year from clients with whom it worked in previous years)
- AMS has a track record for producing genuine results, on time and within budget
- AMS has developed deep business and functional expertise in the markets in which it has chosen to focus
- The company has a sustained growth rate of 20% and has grown for 26 consecutive years

Challenges over the coming year include:

- Recruiting, developing, and retaining highly qualified people (in market conditions which are extremely competitive for skilled people)
- Managing the challenges and risks associated with delivering large, complex projects
- Managing rapid growth without sacrificing margins

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Ameritech Corporation



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Summary Info

Chairman/CEO:	Richard C. Notebaert
Status:	Public
Employees:	66,128 (06/1997)
Revenue:	\$ 14,917.0 mil
Year End	Dec-1996

Key Points

- Ameritech, one of the seven regional telecommunications companies formed by the breakup of the Bell System in 1984, provides communications and network services to both commercial and residential markets.
- Ameritech currently has 19.6 million access lines, 2.3 million cellular customers, and more than one million paging customers. The company currently boasts 386 lines per telephone company employee.
- In October 1996, Ameritech opened an office in Brussels (Belgium), establishing a headquarters for its European operations and an expansion center for new business ventures.
- In September 1996, Ameritech formed a strategic alliance with FirstService Corporation by purchasing the security monitoring assets of Pre-Alert Security Systems, Inc. and certain security monitoring accounts of Intercon Security Ltd., a unit of FirstService Corporation.
- In March 1996, a consortium of which Ameritech is a member became the strategic partner of Belgacom S.A., Belgium's national telecommunications company.
- In March 1996, Ameritech changed the name of The National Guardian Corporation to SecurityLinkSM from Ameritech. National Guardian was acquired by Ameritech in October 1995, expanding the company's customer base to 340,000 throughout the U.S. and Canada.
- During 1995, Ameritech launched a new managed services venture with IBM to pursue opportunities managing desktop computing and communications.
- In September 1995, Ameritech, The Walt Disney Co., and four other partners entered into a joint venture called americastTM to provide an alternative to traditional cable TV.
- In 1995, Ameritech created Ameritech New Media, Inc., a separate subsidiary to build and operate standalone cable TV systems.
- In April 1995, Ameritech announced Ameritech Dedicated Internet Access Service to deliver fully managed, dedicated Internet access service.
- During 1995, Ameritech continued its expansion into international markets through a newly awarded privatization in Belgium, a larger stake in MATAV of Hungary, and a new venture with Chinacom.

Company Description

Ameritech is a leading global supplier of full-service communications and advanced information services. The company provides telephone, cellular, paging, data, leasing, and advertising services as well as systems integration, systems operations, and network services.

During 1994, Ameritech became the first regional company to completely replace rate of return regulation with price cap regulation throughout its region.

- The various state price cap regulation plans allow Ameritech to keep what it earns and provide the company greater flexibility to vary prices to meet the needs of a competitive marketplace.
- In 1995, the FCC approved pure price cap regulation for Ameritech, enabling it to operate without regulatory limits on earnings in any jurisdiction.
- In 1996, the passing of the Telecommunications Act of 1996 set mechanisms for local competition and allowed Ameritech to offer long-distance services to cellular customers.

Organization and Structure

Ameritech has formed a business-unit organization based around customer needs and formed a five-state network organization to serve the business units and their customers.

- The company has consolidated all of its activities under the Ameritech name.
- The functions of the business units overlap the legal entities that form the infrastructure of the company.
- The products and services of all of the companies are marketed under the Ameritech name, but the company's five landline telephone subsidiaries—Ameritech Wisconsin, Ameritech Indiana, Ameritech Illinois, Ameritech Michigan, and Ameritech Ohio—remain responsible within their respective service areas for providing phone and other telecommunications services, subject to regulation by the FCC and the five respective state public utility commissions.

In August 1995, the Ameritech business units were further aligned within three business sectors. Each sector is headed by a senior vice president who reports to Dick Notebaert. The sectors and associated vice presidents include:

- *Communications and Information Products*, headed by Barry K. Allen, includes Advertising Services, Information Industry Services, Long Distance Industry Services, Pay Phone Services, Communications, Regulatory Function, and Five State Entities.
- *Consumer and Business Services*, headed by Andrew S. Patti, includes Consumer, Custom, Enhanced, Small Business, and Product Management Services. This sector accounted for approximately 59% of Ameritech's 1995 revenue.
- *Worldwide Network Systems* includes Cellular, New Media Enterprises, Network, and Security Monitoring Services.

Ameritech's business units and unit presidents include the following:

- *Advertising Services*, headed by Peter J. McDonald, provides directory and electronic advertising opportunities to local, regional, and national businesses throughout the Great Lakes region and serves as a directory and marketing consultant.
- *Information Industry Services*, headed by Neil E. Cox, provides a range of services to more than 4,200 network and information providers that buy services from Ameritech and use them in their product offerings to business and residential customers. Customer segments include Independent Telephone companies, Wireless, Competitive Access Providers, Independent Pay Phone Providers, Cable TV, Database, Multimedia, Telemanagement, Interactive Services, Monitoring, and Control Systems Integration.
- *Long Distance Industry Services*, headed by Karen S. Vessely, provides telecommunications products and services to more than 150 interexchange carriers whose primary business is the provision or resale of long-distance services. Services range from access to the local network to SONET rings.
- *Pay Phone Services*, headed by Ellen M. Gardner, provides voice, information, and multimedia pay phone communications products.
- *Ameritech Communications, Inc.*, headed by Steven P. Nowick, provides toll calling and long-distance services to approximately 30% of Ameritech's cellular customers. The unit is prepared to offer long-distance services and packages of services to home and business telephone customers upon approval from regulators under the Telecommunications Act of 1996.
- *Consumer Services*, headed by Mitchell Wienick, is Ameritech's largest business unit, providing approximately 32% of the company's overall 1995 revenue. This unit provides communications services to 11.1 million households in its five-state region. Services include telephone lines, customer premises equipment, and call management services such as Caller ID and Call Waiting.
- *Custom Business Services*, headed by Gregory Q. Brown, provides specialized services to approximately 200 of Ameritech's largest customers, which typically average 5,000 access lines and have multiple in-region and out-of-region locations. Services include data solutions, telephone lines, customer premises equipment, electronic commerce, and desktop managed services.
- *Enhanced Business Services*, headed by Ronald L. Blake, assists Ameritech's 62,000 midsize to large business, health care, education, and government customers in developing and installing information and communications solutions. This unit provides telephone lines, customer premises equipment, call management services, and data services.
- *Small Business Services*, headed by Timothy Cawley, provides communications links for more than one million small businesses, which typically have 11 or fewer access lines. Services include telephone lines, customer premises equipment, and call management services.
- *Product Management*, headed by Thomas J. Reiman, promotes increased use and penetration of existing Ameritech services, develops new products, and continually enhances established services.
- *Cellular Services*, headed by John E. Rooney, serves the wireless communications needs of approximately 2.3 million cellular customers and more than one million paging customers in seven midwestern states and Hawaii.
- *Ameritech New Media Inc.*, headed by Deborah L. Lenart, is Ameritech's subsidiary that is building and marketing AmericaCast™, Ameritech's enhanced cable TV service which includes 80-90 channels of cable TV programming. Future services may also include home shopping, banking, and interactive services.
- *Network Services*, headed by Thomas E. Richards, addresses improvements in quality, customer service, and cost performance for Ameritech business units and customers.
- *Security Monitoring Services*, headed by Stephen E. Pazian, designs, installs, monitors, and maintains electronic security services marketed as SecurityLinkSM from Ameritech to more than 360,000 homes and businesses in the U.S. and Canada. Services include burglar and fire alarm systems, closed-circuit cameras (CCTV), and electronic card access.
- *Capital Services*, headed by R. Scott Horsley, provides value-added financing to approximately 5,000 business and

government customers in all 50 states.

- *International*, headed by Walter S. Catlow, leverages Ameritech's existing telecom competencies and resources to enter attractive international markets, pursues new international communications opportunities, and manages existing international businesses in New Zealand, Hungary, Poland, Norway, Germany, and China.

A three-year summary of source of revenue by business unit is shown on the following page.

Company Strategy

Ameritech's three-part strategy for growth is as follows:

- To be the best full-service communications company, delivering value in communications and information to customers and providing all the services customers want in one stop—including telephone, data, video, cellular, paging, and information.

Ameritech Corporation Revenue by Business Unit

Business Unit	Fiscal Year		
	1995	1994	1993
Consumer	32%	33%	33%
Custom, enhanced, and small business	27%	28%	29%
Long distance	14%	16%	17%
Advertising	8%	8%	8%
Cellular, including paging	8%	7%	5%
All other	11%	8%	8%
Total	100%	100%	100%

- Creating new services for customers in high-growth areas of communications, such as long-distance and interactive services. Ameritech's long-term goal is to generate as much as 20% of its revenues from these new services.
- Reaching customers around the world by participating in international privatizations, alliances, strategic investments, and outsourcing.
 - During 1995, Ameritech led a consortium that was selected as a strategic partner for Belgacom S.A., the national telecommunications company in Belgium.
 - The Ameritech alliance more than doubled its investment in the Hungarian telecommunications company, MATAV, in 1995.

Financials

Ameritech's 1995 revenue reached \$13.4 billion, a 7% increase over 1994 revenue of \$12.6 billion. Net income was \$2.0 billion, compared to a net loss of approximately \$1.1 billion in 1994, before one-time items.

A five-year financial summary is shown on the following page.

Ameritech management attributes 1995 results to higher communications network usage resulting from:

- Access line and cellular subscriber growth
- Increases in managed network services
- Increases in new products and services, including call management services, customer premises equipment, and security monitoring

Ameritech Corporation Five-Year Financial Summary

(\$ Millions, except per-share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$13,427.8	\$12,569.5	\$11,864.7	\$11,284.7	\$10,983.3
• Percent change from previous year	7%	6%	5%	3%	2%
Income before taxes	\$3,094.1	\$1,741.4	\$2,222.5	\$1,973.7	\$1,656.4
• Percent change from previous year	78%	(b) (23%)	13%	19%	(8%)
Net income (loss)	\$2,008	\$(1,063.6)	\$1,512.8	\$(400.4)	\$1,165.5
• Percent change from previous year	(a) 289%	(c) (170%)	478%	(d) (134%)	(7%)
Earnings (loss) per share	\$3.63	\$(1.94)	\$2.78	\$(0.75)	\$2.19
• Percent change from previous year	(a) 287%	(c) (170%)	471%	(d) (134%)	(8%)

(a) Includes one-time gains of \$78.7 million (\$0.14 per share) related to restructuring efforts and \$41.3 million (\$0.08 per share) related to exchange of cellular partnership interests.

(b) Includes work force restructuring charges of \$728.1 million, pretax.

(c) Includes a one-time charge of \$2,234 million (\$4.07 per share) from discontinuance of FAST1.

(d) Includes a cumulative charge of \$1,746.4 million (\$3.26 per share) from a change in the method of accounting for postretirement benefits.

Revenue Analysis by Product/Service

Ameritech segments its revenue according to the following categories of service:

- Local service revenues include basic monthly service fees and usage charges, fees for custom-calling features, public phone revenues, and installation and connection charges.
- Network access revenues are fees charged to interexchange carriers, such as AT&T and MCI, that use Ameritech's local telecommunications network to provide long-distance services to their customers. In addition, users pay flat-rate access fees to connect to the local network to obtain long-distance service. These revenues are generated from both interstate and intrastate services.
- Long-distance revenues are derived from customer calls to locations outside of the local calling area but within the same service area.
- Directory, cellular, and other revenues include telephone directory publishing, cellular communications, paging services, lease financing, billing and collection services, and telephone equipment sales and installation.

A three-year summary of source of revenue by product/service follows:

Ameritech Corporation
Three-Year Source of Revenue Summary
(\$ Millions)

Product/Service	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Local service	\$5,586	42%	\$5,337	42%	\$5,065	43%
Interstate network access	2,254	17%	2,218	18%	2,118	18%
Intrastate network access	562	4%	612	5%	623	5%
Long distance	1,457	11%	1,456	12%	1,401	12%
Directory, cellular, and other	3,569	26%	2,946	23%	2,658	22%
Total	\$13,428	100%	\$12,569	100%	\$11,865	100%

Interim Results

Revenue for the nine months ending September 30, 1996 reached \$11.0 billion, an increase of 11% over revenue of \$9.9 billion for the same period in 1995. Net income reached \$1.6 billion, a 13% increase over net income of \$1.4 billion for the same period a year ago.

Market Financials

Ameritech's revenues are derived cross-industry, including residential and business customers.

Geographic Markets

International investments represented 6.3% of Ameritech's assets as of December 31, 1995, compared to 5.4% as of December 31, 1994.

- Such investments are accounted for by using the equity method of accounting. Ameritech's allocable share of the operating results of its international investments is included in other income.
- More than one-third of Ameritech's third quarter 1996 earnings growth was generated by the company's international investments.

Acquisitions

In October 1995, Ameritech acquired The National Guardian Corporation, a wholly owned subsidiary of LET Group PLC providing electronic security services.

- National Guardian had 1994 revenues of approximately \$215 million.
- This purchase expanded the company's security monitoring customer base to 340,000 throughout the U.S. and Canada, making Ameritech the second largest provider of security monitoring services in the U.S.

In August 1995, Ameritech acquired ABE Marketing, a Central European-based publisher that produces business-to-business directories for the Czech Republic, Croatia, Slovakia, and Slovenia. This acquisition positions Ameritech as one of the leaders in European business-to-business directories.

During 1995, Ameritech acquired the remaining 10% of "Wer liefert was?" (Who supplies what?), the leading German publisher of business purchasing guides, in which Ameritech had acquired a 90% interest in 1990.

In December 1994, Ameritech entered the electronic security monitoring industry with the purchase of SecurityLink of Oak Brook (IL). The terms of the acquisition were not disclosed.

- SecurityLink had 1993 revenues of nearly \$40 million.
- SecurityLink had approximately 44,000 customers located primarily in the Midwest, including the Chicago, Cleveland, Columbus, and Indianapolis metropolitan areas. It also serves customers in Philadelphia and Washington, D.C.
- Ameritech formed a new subsidiary, SecurityLinkSM from Ameritech, through which to offer its newly acquired security monitoring services.

Employees

As of December 31, 1995, Ameritech had 65,345 employees, a 3% increase over 63,594 employees the previous year.

Employee growth was due primarily to new employees in the cellular, security monitoring, and other operating units. These increases were partially offset by a decrease of about 2,400 employees at the landline communications subsidiaries resulting from work force restructuring that began in 1994.

As of August 31, 1996, the company had approximately 65,790 employees.

Key Products and Services

Landline Telephone Services

Ameritech furnishes a range of advanced telecommunications services, including local exchange, toll service, network access, and telecommunications products to 13 million business, residential, and communications company customers in an operating area comprised of 37 Local Access and Transport Areas (LATAs) in Illinois, Indiana, Michigan, Ohio, and Wisconsin.

As of December 31, 1995, 81% of Ameritech's customer lines were served by digital switches and virtually all its lines had been converted to equal access. As of that date, the company had 1.1 million installed strand miles of fiber-optic cable.

- The number of customer access lines grew by 4.5%, primarily due to the increase in residential fax machines, modems, and other equipment.
- Business lines increased 7.2% to 6.2 million.
- Residential lines increased 3.1% to 12.3 million.

Ameritech's landline subsidiaries provide two basic types of telecommunications services:

- Transporting telecommunications traffic between a subscriber's equipment and the telephone exchange offices located within the same LATA (intraLATA). These services include local exchange, private line, and intraLATA toll services (including 800 and special services for data, radio, and video transport).
- Providing exchange access service, which links a subscriber's telephone or other equipment to the network of transmission facilities of long-distance carriers, which in turn provides telecommunications service between LATAs (interLATA or long-distance service).

Ameritech expects to offer landline long-distance service in its five-state region in early 1997, beginning in Illinois and Michigan.

Ameritech also provides directory assistance, local and toll operator services (including collect calls, third-number billing, person-to-person, and calling cards), and offers such digital network services as voice mail, on-line database access, fax messaging, document sharing functions, and videoconferencing for desktop computers.

- In September 1995, Ameritech introduced SmartQuestSM 800, a bundled call management solution for businesses, providing Caller ID and 800 services, special database software, call adapter, and telephone support.
- Introduced to Chicago and Detroit customers in September 1996, Ameritech's National Directory Assistance service provides local and long-distance numbers across the country without requiring area codes. The company plans to introduce National Directory Assistance to the entire five-state Ameritech area.

Ameritech® Automatic Meter Reading Service permits the reading of customers' gas, electric, and water meters through existing phone lines. The city of Salem (OH) has a 10-year contract with Ameritech for this service.

Through the Ameritech Packet Switch Network provided by Ameritech Ohio, motor vehicle licensing officials in Ohio can access and update all Ohio drivers' licenses and vehicle registration.

Ameritech provides a range of network consulting, integration, and design services to major business, government, and institutional customers.

- Ameritech can integrate voice, data, video-conferencing, and environmental systems, including customer premise equipment, local and long-distance networks, and private networks.

- Ameritech provides custom data connectivity solutions to link customers' operations. *Branch Office Data Connectivity* solutions combine ISDN, frame relay, ATM, and other communications technologies. Ameritech also provides Internet access.
- During 1994, EDS and Ameritech signed a \$225 million, seven-year outsourcing contract under which Ameritech is providing maintenance, repair, and upgrades to voice communications systems at more than 300 EDS sites in 41 states.
- Ameritech was awarded a \$20 million, five-year contract to maintain Motorola's telecommunications service center.
- Ameritech was awarded a ten-year, \$25 million contract with the city of Chicago to support the city's 911 system.
- The State of Michigan has signed a 60-month, \$6.3 million master network contract to provide services to state agencies.
- Ameritech will build a six-node, \$5.9 million SONET ring to meet Comdisco customers' disaster recovery needs.
- Ameritech will provide the City Colleges of Chicago with videoconferencing capabilities, including a T-1 network encompassing 15 locations with VTEL video equipment and multiple bridges.

Ameritech provides the following services in support of other network and information providers:

- Through a strategic alliance with Concentric Network Corporation, Ameritech helps local telephone exchange carriers (LECs) to provide Internet access to their rural customers. Ameritech provides a turnkey service, including network design and maintenance, marketing support, and billing solutions, and Concentric provides the Internet connection, host services, software, credit card verification, billing information, and customer service.
- Ameritech provides billing and collection services for several companies, including billing for long-distance services offered by certain long-distance carriers.
- Ameritech's *UltimateLink* program is designed to meet the needs of the long-distance industry for products, high-quality service, and competitive prices. Ameritech is investing \$200 million in network infrastructure for SONET-based high-speed switched and dedicated service.
- In an alliance with Paradigm Technology Ltd. of New Zealand, Ameritech is the exclusive marketing and support arm of Transaction Analysis and Processing System (TAPS) for the U.S. telecommunications industry. TAPS is a software product that provides near-real-time usage rate calculations while reducing operating costs.
- New products for third-party providers include:
 - *Cellular Alarm Terminals* provide cellular backup to security systems.
 - Services provided for Personal Communications networks include both network facilities to support PCS and engineering and consulting services.
 - *Control Services Integration* will provide utility customers with control systems that can sense, measure, monitor and control a range of utility functions.
 - *Infocannel* is a multimedia information system used to distribute information to any number of PCs and television units and can be used in hotels, airports, shopping malls, and on cable TV channels.
 - *Interactive Services Platforms* are designed for companies that market information services such as 976 numbers and voice messaging services to customers.

Interactive Services

In April 1995, Ameritech announced seven Internet initiatives:

- Operating a network access point for Internet service providers
 - Ameritech is one of four providers selected by the National Science Foundation in 1993 to offer a network access point (NAP) for the Internet in the U.S.
 - The company will operate its NAP over an ATM switch.
- Offering dedicated Internet access throughout the Ameritech region
- Offering dial-up Internet access throughout the Ameritech region

In March 1995, Ameritech and CCNet, a not-for-profit subsidiary of the Champaign County Chamber of Commerce, entered into a partnership to begin test-marketing two new interactive services in Champaign County (IL): a high-speed Internet Access Service and a home and office communications system that integrates communications and computer functions using the Integrated Services Digital Network (ISDN).

- Offering Internet navigational software through Ameritech Library Services

NetPublisher and WinPAC are two products introduced by Ameritech Library Services to make the Internet easier to access and navigate.

- Partnering to develop the Internet as a tool for electronic commerce

In January 1995, Ameritech joined CommerceNet, a nonprofit consortium of organizations working to build an open Internet-based infrastructure for electronic commerce.

- Partnering with the State of Michigan to use the Internet to enhance education

- Maintaining its own presence on the Internet

Ameritech entered the high-growth electronic security monitoring industry in December 1994 with its acquisition of SecurityLink.

- In May 1995, SecurityLink expanded operations to new and existing customers in the Washington, D.C., Maryland, northern Virginia, and Trenton (NJ) areas by opening two new facilities in Cranbury (NJ) and Beltsville (MD).
- In October 1995 Ameritech expanded its position in the industry with the acquisition of The National Guardian Corporation.
- In March 1996, Ameritech renamed its National Guardian security services SecurityLinkSM from Ameritech, to provide a consistent brand identity and to establish itself as a premier provider of commercial and residential monitored security systems.
- In September 1996, through its Canadian security monitoring subsidiary SecurityLink from Ameritech Ltd., Ameritech entered into a strategic alliance with FirstService Corporation by purchasing the security monitoring assets of Pre-Alert Security Systems, Inc. of Toronto (Ontario).
 - In a separate agreement, Ameritech also acquired certain residential and commercial security monitoring accounts of Intercon Security Ltd., a unit of FirstService Corporation.
 - These agreements with Pre-Alert and Intercon expand Ameritech's reach in the Canadian market by increasing the company's presence in Toronto and forging its entry into Vancouver.
- In November 1996, SecurityLink from Ameritech Ltd. acquired the business of Toronto (Ontario)-based Romex Security Systems Inc. This transaction makes the combined operations the largest security services provider in Canada and raised the customer base to more than 360,000 in the U.S. and Canada.
- Ameritech has plans to offer home and business owners remote monitoring and adjustment of heating, air conditioning, lighting, sprinklers, and appliances through "smart home" and "smart office" services.

Through October 1996, Ameritech has finalized 25 cable TV franchise agreements representing access to more than 1.4 million people and 600,000 households, and has launched service in Chicago, Cleveland, Columbus, and Detroit.

- Ameritech is signing up thousands of customers and growing the market by 10% in some areas.
- The company is building a hybrid fiber-coax digital network capable of eventually delivering multicast and interactive services over more than 300 channels.

Ameritech is also pursuing alliances and partnerships that will position it as a key participant in the emerging era of interactive video, exploring a variety of services with different suppliers of traditional cable TV, video on demand, home health care, interactive educational courses, distance learning, interactive games, shopping, and other entertainment and information services.

- Ameritech has invested in Peapod LP, an interactive home grocery shopping and delivery service. Using a personal computer, more than 14,300 customers in the Chicago and San Francisco areas can choose grocery items and schedule home delivery at their convenience. In 1995, Peapod expanded service by 30%.
- Ameritech has a 25% interest in MN Interactive, Inc. which uses on-line links, CD ROM, dial-up connections, and voice mail to provide music previewing, ordering, and delivery of the latest music CDs from major and independent record producers.
- Ameritech also has an equity investment in KidSoft, LLC, a leading brand for quality educational software for kids through on-line and retail channels.
- Ameritech and Random House have expanded their ownership of Worldview Systems Corporation, a supplier of electronic travel and entertainment information.
 - Ameritech and Random House each now own more than 40% of Worldview Systems, with the remainder reserved for the firm's management team.
 - The company's first product, Fodor's Worldview Travel Update, offers customers, via fax, on-line information services, or mail, time-sensitive destination information that complements Fodor's catalog of printed guidebooks.
- In September 1995, Ameritech, The Walt Disney Company, Bell South Corporation, SBC Communications (formerly Southwestern Bell Corporation), and GTE entered into a joint venture named americastTM to develop, market, and deliver traditional and interactive video programming to customers.
 - Southern New England Telecommunications joined the alliance in early 1996.
 - The service provides customers in 33 states with an alternative to traditional cable TV, as well as two-way services including home shopping, banking, travel planning, and electronic games.
 - This joint venture is headed by Stephen Weiswasser, the newly named CEO, who was formerly with Cap Cities.
- Ameritech has invested \$472.5 million in GE Information Services (GEIS), a wholly owned subsidiary of General Electric Company and a leader in the global electronic commerce market.
 - The investment is in the form of a four-year interest-bearing convertible debenture which, when legal restrictions are removed, converts into a 30% equity interest in GEIS.
 - In 1995, GEIS agreed to provide MATAV, the primary telecommunications provider in Hungary and in which Ameritech owns an interest, with electric data interchange technology, enabling it to offer its business and government sector customers enhanced information management capabilities.

Other information services offered by Ameritech include the following:

- Ameritech processes billing and clinical transactions for health care providers through an integrated system of computer software, hardware, and telephone lines.
 - Ameritech's health information network enables doctors, hospitals, pharmacies, laboratories, employers, and others in the health care industry to share clinical, demographic, financial, and claims data.
 - In Wisconsin, in partnership with Aurora Health Care of Milwaukee, Ameritech developed the Wisconsin Health Information Network, the world's largest interactive health care information network, used by more than 2,000 doctors, hospitals, insurers, medical labs, and pharmacies.
- Ameritech Library Services provides a range of automated library management systems, serving more than 3,700 libraries throughout the U.S. and 32 other countries.
 - Clients include the Library of Congress, The Smithsonian Institute, Yale and Harvard universities, Microsoft Corporation, and the New York Public Library.
 - Ameritech also offers products that provide access to information databases and networks, creating virtual libraries.
- In 1995, Ameritech and IBM formed a managed services marketing alliance whereby the companies jointly market integrated voice, data, and video managed desktop services for businesses, providing customers with a single point of contact for managing every aspect of desktop-based communications and computing systems.
- In March 1994, Ameritech entered into a joint venture with BC Systems of British Columbia to form CivicLinkSM, which allows on-line access to publicly available government records, such as property titles, court records, liens, and construction permits. CivicLink is currently in operation in Marion County (IN), Prince George's County (MD), Los Angeles County (CA), and DuPage, Kane, DeKalb, and Kendall Counties (IL).
- Ameritech and Citibank market a smart phone that is used to pay bills, get stock quotes, transfer money between accounts, order travelers checks, and review balances.
- Confirm & Pay, launched in late 1994, is designed to allow brokerage firms to meet the Securities and Exchange Commission's new three-day trade settlement requirement (T+3) by confirming and settling trades electronically.

Cellular and Other Wireless Services

Ameritech provides cellular and other wireless communications to 2.3 million customers in Illinois, Indiana, Michigan, Missouri, Ohio, and Wisconsin.

- In September 1995, Ameritech began offering cellular service in Cleveland and Indianapolis.
- During 1995, Ameritech's cellular customer base grew by approximately 600,000, a 46% increase over the prior year.
- Subscribers to Ameritech's international wireless joint ventures increased in 1995 to 837,000 from a customer base of 111,000 a year earlier.
- In February 1996, Ameritech began offering long-distance service to its cellular customers. The company demonstrated its capability in the first official call between Chicago and Hamburg (Germany).
- Ameritech has formed strategic cellular partnerships in Poland, Norway, and China and has investments in other cellular providers.

Wireless Packet Data Services, introduced in 1994, provides the mobile data customer with application options to send data over the cellular network.

During 1994, Ameritech became the first cellular carrier in the country to offer its customers the ability to use cellular phones in both North America and Europe. The Ameritech Cellular International Network employs the Global System for Mobile Communications standard.

Ameritech currently provides local and nationwide paging services to customers in Illinois, Indiana, Michigan, Missouri, Minnesota, Ohio, and Wisconsin, using over one million paging units, an increase of 33% over year-end 1995.

- In November 1994, Ameritech won the narrowband personal communications services (PCS) regional license to offer two-way paging in the Midwest.
- In 1997, Ameritech plans to begin building out its system for two-way paging and data services to customers regionwide. The return paging channel will allow users of two-way pagers to acknowledge a page and, eventually, to provide a detailed response.
- In 1995, the company acquired broadband PCS licenses in the Cleveland and Indianapolis major trading areas, covering nearly eight million potential customers. Ameritech currently offers wireless services to customers in Indianapolis and Cleveland through reselling agreements. The company plans to provide facility-based services beginning in 1997.

Advertising/Directory Services

Ameritech provides directory and electronic advertising to local, regional, and national businesses throughout the Great Lakes region and serves as an advertising and marketing consultant.

Ameritech publishes more than 450 Ameritech PagesPlus® white and yellow page directories in Indiana, Wisconsin, Ohio, and

Michigan and, in partnership with Donnelly Directory, in Illinois and northwestern Indiana, with a total distribution of more than 41 million.

Using new audiotex technology, Custom Connect audiotex, available 24 hours a day, 7 days a week, provides consumers and advertisers with a range of information opportunities accessible through special phone numbers.

- Consumers can call for up-to-date information including news, sports, and weather, as well as information about specific products and services.
- Advertisers can provide consumers with updated messages about their businesses, such as sales, discounts, and special hours.
- In October 1996, Ameritech began offering advertising space for a new Internet yellow pages service.

Other products include Ameritech Industrial Purchasing Guides®, targeted to buyers of industrial products, and The Ameritech Business Search white and yellow page business reference directories, which are also available in CD ROM.

International

Since 1990, Ameritech has invested approximately \$2 billion in Germany, New Zealand, Hungary, Poland, and Norway, and has established offices in China and Belgium.

The company provides cellular service in Norway, and publishes business-to-business directories throughout Europe, including in Germany, Austria, Belgium, Switzerland, Luxembourg, the Netherlands, the Czech Republic, Slovenia, Slovakia, and Croatia. It also provides electronic library services in Sweden, the U.K., France, Ireland, Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands, and Slovakia.

In October 1996, Ameritech opened an office in Brussels (Belgium), establishing a headquarters for its European operations and an expansion center for new business ventures.

- The new office will be responsible for Ameritech's European operations, business development, and strategy.
- The office will be headed by Herbert R. Hribar, vice president of Ameritech International and managing director, Ameritech Europe.

In March 1996, Ameritech and its consortium partners Tele Danmark A/S and Singapore Telecommunications Limited (Singapore Telecom) became the strategic partner of Belgium's national telecommunications company, Belgacom S.A.

- The consortium paid approximately \$2.5 billion for a 49.9% interest in Belgacom. This is Belgium's largest single investment by an American company.
- Ameritech has a 35% consortium share and an approximately 17.5% interest in Belgacom.

In August 1995, Ameritech entered into a 25-year joint venture with China Communications System Company Ltd. (Chinacom) to build cellular and wired telephone networks in China.

- The joint venture will provide funding, advanced communications technology, and management consulting to assist China in developing its telecommunications sector.
- The venture will initially build a GSM cellular telephone and wireline switched telephone network for Taiyuan, the capital of Shanxi province. China Unicom, an authorized carrier, will operate the network.
- Ameritech opened an office in Beijing in early 1995.

In 1995, Ameritech acquired the remaining 10% of "Wer liefert was?" (Who supplies what?), the leading German publisher of business purchasing guides, resulting in a total acquisition of the company. The company now produces and distributes business-to-business directories to more than 70,000 customers in Germany, Austria, Switzerland, Belgium, Luxembourg, the Netherlands, the Czech Republic, Croatia, Slovakia, and Slovenia.

In 1995, MagyarCom, an alliance between Ameritech and Deutsche Bundespost Telekom of Germany, increased its ownership of MATAV, the Hungarian telecommunications company, from 30% to 67%. The Hungarian government owns most of the remaining 33%.

- Ameritech and Deutsche Bundespost Telekom of Germany, Europe's largest communications carrier, are equal partners in MagyarCom.
- MATAV has approximately 1.8 million access lines and a goal to increase to 3 million lines in service by the year 2000.

During 1994, Ameritech announced a Pan-American alliance with six other cellular companies, including ALLTEL Mobile, Bell South Mobility, CommNet Cellular, GTE Personal Communications Services, Radiomovil DIPSA S.A. (Telcel, the carrier for

the Republic of Mexico), and Southwestern Bell Mobile Systems, to provide a virtual international network throughout much of the U.S. and Mexico. While roaming in the markets of the alliance, Ameritech customers receive automatic call delivery, home customer care, and competitive roaming rates.

Since September 1993, Ameritech and its partners in NetCom GSM have provided digital cellular service in Norway. In 1992, Ameritech and Singapore Telecom, the government-owned telecommunications and postal operator in Singapore, agreed to acquire an equal interest in NetCom totaling an effective 49.9%.

- In 1995, NetCom's customer base was tripled to 235,000 customers.
- Nationwide coverage by the NetCom system is expected within two years.

Since 1992, an Ameritech consortium has operated the Centertel cellular system in Poland. Ameritech and France Telecom, in partnership with Telekomunikacja Polska S.A., Poland's state-owned telephone company, created a joint venture to build the analog cellular system.

In September 1990, Ameritech and Bell Atlantic purchased Telecom Corporation of New Zealand Limited, New Zealand's state-owned principal supplier of domestic and international telecommunications services, including local, long-distance, cellular, satellite TV, and directory services.

- Ameritech and Bell Atlantic each have a 24.8% interest in the company.
- During 1995, New Zealand Telecom's profits increased by 16%.

Marketing and Sales

Ameritech markets its products and services through a direct sales force and through other company authorized dealers.

Competition

Ameritech's major competitors include other access providers, cellular, video, and home security providers, and the other regional Bell operating companies.

The company also faces potential competition from AT&T, MCI Communications Corp., and other long-distance providers that are ready to offer local phone service in various parts of Ameritech's five-state region.

AT&T and McCaw Cellular Communications, Inc. have allied to form expanded cellular markets, creating the possibility of a wireless network with nationwide presence.

Tele-Communications, Inc., Comcast Corp., and Cox Cable Communications are part of a cable company joint venture with Sprint Corporation that plans to offer alternative wireless service.

Assessment

Ameritech considers its strengths to include the following:

- World-class market-based organization/culture
- State-of-the-art, ubiquitous network
- Strong financial position
- Extensive customer relationships

Challenges over the coming year include:

- Successful execution of the company's strategy
- Managing a number of public policy issues, including interconnection, universal service, access charge reform, and long-distance entry

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Andersen Consulting



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Summary Info

Partner: George T. Shaheen
:
Status:
Parent: Partnership
Employees: 53,426 (12/1997)
Revenue: \$ 6,647.0 mil
Year End Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.
Electronic Commerce for the Enterprise	U.S.
Outsourcing Services	U.S.
SAP Services	Thailand

Key Points

- Andersen Consulting uses its business integration approach—aligning a client's technology, people, and business processes with its strategy—to achieve best business performance.
- Andersen Consulting attributes the company's success to delivering value to its clients through its people and global reservoir of knowledge.
- Andersen Consulting has organized the operations of its 16 global industry practices into five "Global Market Units" created to deliver consistent standards of quality and added value worldwide.
- Effective December 17, 1997, Andersen Consulting filed a request with the International Chamber of Commerce to intervene to resolve their disputes with Arthur Andersen and Andersen Worldwide, citing serious breaches of contract and irreconcilable differences. An arbitrator will decide if the firm should be excused from any further obligation to Arthur Andersen and Andersen Worldwide under the parties' operating agreements. Details will unfold in 1998.
- Effective September 1, 1997, Andersen Consulting will operate 16 global industries within five "Global Market Units": Communications, Financial Services, Government, Products and Resources. The Global Market Units will have global financial accountability (for profit/loss).
- In August 1996, the firm introduced a new end-to-end service for enterprisewide applications, called Design, Build, Run®. This service addresses the entire life cycle for applications such as Baan, Oracle, PeopleSoft and SAP—from project conception and strategy through application development and maintenance of the solution.

Company Description

Andersen Consulting is a global management and technology consulting organization whose mission is to help its clients change to be more successful. Services provided include a range of professional, systems integration, and outsourcing services.

Andersen Consulting is organized by industry practices. Examples are Automotive & Industrial Equipment, Chemicals and Communications. There are 16 principal industries effective September 1, 1997.

Andersen Consulting develops and delivers its consulting skills through four competencies—Process, Change Management, Strategic Services, and Technology—to offer solutions that apply to services such as reengineering.

Andersen Consulting recruits its people into competencies; over the course of their careers, Andersen Consulting consultants also develop industry market specialties.

Company Strategy

Andersen Consulting's vision is "to be one global firm committed to quality by having the best people with knowledge capital, partnering with the best clients to deliver value."

As a by-product of its vision, Andersen Consulting emphasizes "partnering" and "delivering value."

- Partnering—building joint teams side by side, transferring knowledge, and assuming an implementation role as well as an advisory role.
- Delivering value, according to Andersen Consulting, means an emphasis on linking the results of change initiatives to long-term client success as defined by measurable outcomes such as increased profitability and shareholder wealth

Solution centers support the development and delivery of both Andersen Consulting developed solutions and third-party software and are designed to enhance the ability to deliver upon a client's value proposition. Today there are more than 40 centers that are in place or planned worldwide.

Andersen Consulting operates as a global partnership through an international network of consultants with national practices in 47 countries.

- Andersen Consulting management cites the company's ability to capture knowledge from its worldwide operations and package the knowledge so that it can quickly be used to add value to client solutions, as one of the keys to continued growth.
- The organization emphasizes global sharing of best practices through its Knowledge Xchange® knowledge management system, an electronic network that enables the firm's 53,426 professionals to communicate and share knowledge.

Organization and Structure

Andersen Consulting currently has 148 locations in 47 countries, including 71 locations in the Americas, 58 locations in Europe/Middle East/Africa/India (EMEA), and 19 locations in Asia/Pacific.

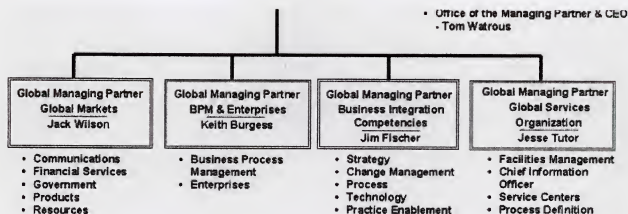
Andersen Consulting is a highly matrixed organization -- organized along geographic, industry, and competency lines, with industry groups focusing on go-to-market strategies and competencies on delivery. Both industries and competencies are coordinated across three global areas, the Americas, Asia/ Pacific, and EMEA.

Andersen Consulting's Global Management Council sets the firm's global direction. Its mission is to analyze policy issues, review the organization's strategic direction, and ensure that Andersen Consulting's investments are consistent with that strategic direction.

Andersen Consulting also has a Quality Leadership Council to help oversee quality initiatives worldwide.

Exhibit 1





Source: Andersen Consulting

Andersen Consulting's current organization is listed in Exhibit 1.

Effective September 1, 1997, all industries are organized around the following "Global Market Units," each with profit/loss accountability: Communications, Financial Services, Government, Products, and Resources.

Exhibit 2

Andersen Consulting's Industry Practices

Communications

- Media & Entertainment
- Pharmaceuticals & Medical Products
- Retail
- Transportation & Travel Services

Financial Services

- Banking
- Health Services
- Insurance
- Health Services
- Insurance

Resources

- Chemicals
- Energy
- Natural Resources
- Utilities

Government

Products

- Automotive & Industrial Equipment
- Electronics & High Tech
- Food & Packaged Goods

Exhibit 3

Andersen Consulting Five-Year Worldwide Revenue Summary (\$ Millions)

Item	Calendar Year				
	1997	1996	1995	1994	1993
Revenue	\$6,647	\$5,302	\$4,224	\$3,452	\$2,876
Percent change from previous year	25%	26%	22%	20%	6%

Source: Andersen Consulting

Financials

Andersen Consulting's 1997 revenues reached \$6.647 billion, a 25% increase over 1996 revenue of \$5.30 billion.

According to Andersen Consulting, the organization's "real" growth—taking out the influence of international exchange rates—was 29% in 1997, compared to 27% in 1996.

Although Andersen Consulting's fiscal year end is August 31, financials are shown for calendar years ending December 31 to conform with common reporting practices. A five-year revenue summary is shown in Exhibit 3.

Revenue growth in 1997 was attributed to the following:

- Andersen Consulting's fastest growing market, the Americas, grew at 29% to \$3.75 billion, up from \$2.92 billion in 1996.
- The Products industry practice grew 23% in 1997, to \$1.99 billion.
- The Financial Services industry practice revenue rose 28% to \$1.92 billion.
- EMEAI revenue grew 25%, Asia/Pacific revenue increased 21%, and revenue in the Americas grew 32% in Financial Services.
- The Insurance segment revenue rose 56%, to \$528 million.
- The Communications industry group revenue increased 23%, to \$930 million.
- The Business Process Management practice, which provides the firm's outsourcing services, grew 58% in 1997, to \$921 million.

Andersen Consulting's investment in research and development was approximately \$456 million (7% of revenue) in 1997, \$401 million (8% of revenue) in 1996, \$383 million (9% of revenue) in 1995, and \$352 million (10% of revenue) in 1994.

Exhibit 4

Andersen Consulting

Three-Year Worldwide Source of Revenue Summary (\$ Millions)

Industry Market	Calendar Year					
	1997		1996		1995	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Financial Services						
- Banking	1,244	19%	1,042	20%	841	19%
- Health Services	145	2%	115	2%	125	3%
- Insurance	528	8%	338	6%	284	7%
	1,917	29%	1,495	28%	1,250	29%
Products						
- Automotive & Industrial Equipment	299	4%	211	4%	166	4%
- Electronics & High Tech	532	8%	368	7%	225	5%
- Food & Packaged Goods	319	5%	282	5%	250	6%
- Media & Entertainment	114	2%	95	2%	85	2%
- Pharmaceuticals & Medical Products	186	3%	162	3%	154	4%
- Retail	282	4%	282	5%	178	4%
- Transportation & Travel Services	256	4%	218	4%	237	6%
	1,988	30%	1,618	30%	1,295	31%
Resources						

- Chemicals	236	3%	172	3%	93	2%
- Energy	435	7%	259	5%	202	5%
- Natural Resources	206	3%	202	4%	128	3%
- Utilities	482	7%	368	7%	282	7%
	1,359	20%	1,001	19%	705	17%
Communications	930	14%	756	14%	573	14%
Government	453	7%	423	9%	380	9%
Other	0	--	9	--	21	--
Total	\$6,647	100%	\$5,302	100%	\$4,224	100%

Note: numbers have been rounded
Source: Andersen Consulting

Revenue Analysis by Product/Service

INPUT estimates that Andersen Consulting's worldwide 1997 revenue was derived approximately as follows:

Systems integration	52%
Professional services	33%
Outsourcing services	11%
Software products	4%
	100%

Market Financials

A three-year summary of worldwide revenue by industry market, as provided by Andersen Consulting, is shown in Exhibit 4.

Exhibit 5 shows a summary that segments 1997 sources of revenue for each of Andersen Consulting's three geographic regions by industry practice.

Exhibit 5

Andersen Consulting

1997 Geographic Source of Revenue by Industry Practice

(\$ Millions)

Industry Practice	Geographic Region		
	Americas	EMEA	Asia Pacific
Products	29%	32%	32%
Financial Services	26%	34%	27%
Resources	23%	18%	12%
Communications	16%	10%	16%
Government	6%	6%	13%
Total Revenue	100%	100%	100%

Source: Andersen Consulting

Geographic Markets

Approximately 56% of Andersen Consulting's 1997 revenue was derived from the Americas, 35% from EMEAI, and the remaining 9% from the Asia/Pacific region.

- Approximately \$3.43 billion in 1997 revenue was derived from the U.S., compared to \$2.65 billion in 1996.

A three-year summary of source of revenue by geographic region, as provided by Andersen Consulting, is shown in Exhibit 6 on the following page.

Exhibit 6

Andersen Consulting Three-year Geographic Source of Revenue Summary (\$ Millions)

Geographic Market	Calendar Year					
	1997		1996		1995	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Americas	\$3,751	56%	\$2,917	55%	\$2,385	56%
EMEAI	2,308	35%	1,876	35%	1,420	34%
Asia/Pacific	588	9%	509	10%	419	10%
Total	\$5,302	100%	\$5,302	100%	\$4,224	100%

Human Resources/Education

Andersen Consulting has initiated the Career Development Model in support of the company's resolution to deliver business integration.

- Andersen Consulting's emphasis is on the concept of multidisciplinary teams in a true business integration environment developing solutions to complex business cases.

During 1997, Andersen Consulting invested a total of \$430 million on education (compared to \$332 million or 6% of revenue the previous year), with a total of nearly 5.5 million training hours, covering 700 central training courses.

Employees

As of December 31, 1997, Andersen Consulting had 53,426 personnel worldwide, compared to 44,801 and 38,027 at year end in 1996 and 1995, respectively.

The total worldwide partner count for Andersen Consulting as of December 31, 1997 was 1,126 (included in the Consultant category), compared to a total of 1,036 partners for 1996.

- In the Americas, there were 23,710 consultants as of December 31, 1997, compared to 20,097 consultants one year prior. In EMEAI, there were 16,480 consultants as of December 31, 1997, compared to 13,576 the previous year. A breakdown of total employees for 1997 and 1996 by geographic region and function is shown in Exhibit 7.

Exhibit 7

Andersen Consulting Personnel

Region	1997	1996
Americas		
Consultants	23,710	20,097
Administrative/Support	5,020	4,042
Total Americas	28,730	24,139
EMEA		
Consultants	16,480	13,576
Administrative/Support	3,049	2,887
Total EMEA	19,529	16,263
Asia/Pacific		
Consultants	4,358	3,716
Administrative/Support	809	683
Total Asia/Pacific	5,167	4,399
Total Consultants	44,548	37,389
Total Admin/Support	8,878	7,412
Total Personnel Worldwide	53,426	44,801

Source: Andersen Consulting

Key Services—Competencies

Andersen Consulting provides a range of consulting and outsourcing services through a combination of its four competencies — Strategic Services, Change Management, Process, and Technology.

Solution centers are part of the total delivery mix of solutions to clients and allow Andersen Consulting to leverage knowledge capital more effectively. By working closely with client project sites, solution centers are developing and reusing both Andersen Consulting and third-party assets to deliver value-based solutions to clients.

- Solution centers are Process, Technology and Change Management Competency based and enable Andersen Consulting to more effectively bring together the elements of a business integration team.
- Andersen Consulting professionals view solution centers as an attractive career opportunity because they provide more flexibility for individuals to manage and develop their careers.
- Andersen Consulting reports that solution centers have demonstrated ability for high quality results with reduced effort and reduced elapsed time in comparison to available alternatives.

Strategic Services

- Andersen Consulting believes that transformational change is imperative for survival.
- Strategies range from optimizing the use of resources to improving competitive positioning in existing lines of business to identifying new opportunities in other industries or market segments.

Change Management

Andersen Consulting's Change Management Competency manages organizational change while minimizing the risk, errors, and productivity declines inherent in massive change.

The Change Management Competency shows clients how to anticipate changes that are likely to occur, and through the Performance Technologies Solution Center, helps to prepare the workforce for these changes with computer-based training, on-line quick reference, multimedia, and Web-based performance support.

Process

Andersen Consulting believes clients can achieve dramatic innovation by keeping abreast of emerging technologies and by evaluating their potential as process enablers. The new processes can be sustained over time by aligning measures and reward programs with process objectives.

Technology

The Technology Competency, with 12,000 professionals located worldwide, is responsible for systems integration.

Key Services—Business Process Management

Andersen Consulting offers Business Process Management in addition to performing professional services consulting. This is the organization through which the firm's outsourcing services are offered.

- Business Process Management offerings include business process outsourcing, information technology outsourcing, applications management, desktop management, network management and operations.
- The Design, Build, Run® service—all aspects of the client's business objectives including strategy, design, application development and management—is also offered through Business Process Management.
- The Business Process Management organization employs more than 8,500 professionals and represents more than 130 clients worldwide. The majority of clients are based in the U.S. and the U.K. The organization also has some assignments across Europe, the Asia/Pacific region, and Latin America.
- In April 1996, Andersen Consulting launched SENERGYSM, a Business Process Outsourcing center located in Houston (TX), providing finance and administrative services for the energy industry. SENERGY provides shared business services such as customer service, logistics/procurement, finance, and administration, allowing oil companies to focus on their core business, improve productivity, and cut costs.

Industry Markets

Communications

The Communications Industry Segment, recorded worldwide 1997 revenue of \$930 million, a 23% increase over revenue of \$756 million in 1996.

With 6,000 consultants worldwide, the practice serves most of the world's major telecommunications carriers, including narrowband and broadband communications carriers, cable TV companies, wireless and satellite carriers, and Internet providers.

Financial Services

Banking

The Banking Industry Segment consists of Retail Financial Services and Financial Markets as of September 1, 1997. Retail Financial Services serves commercial banks, thrifts, credit unions, and leasing institutions. Financial Markets serves the globalization of brokerages and mutual funds businesses. Prior to September 1, 1997, Retail Financial Services and Financial Markets operated separately. 1997 revenues for Banking were \$1.24 billion.

Health Services

The Health Services Industry Segment recorded worldwide 1997 revenue of \$145 million, up 26% from 1996 revenue. With more than 1,500 healthcare-specific professionals in the Americas, Europe, Australia, and Asia, the practice currently serves more than 100 clients throughout the world.

Insurance

- The Insurance Industry Segment contributed \$528 million in revenue during 1997, up 56% from 1996. Andersen Consulting is working with more than half of the top 50 insurance companies in the world.

Government

Government

The Government Industry Segment increased its revenues by 7% during 1997 to \$453 million.

The Government Industry practice serves national, state, provincial, and local government agencies around the world, focusing on several key segments: taxation, human services, public safety, defense, postal services, finance/administration and electronic government.

Products*Automotive & Industrial Equipment*

Serving clients in the construction, automotive, fabricated metal products and industrial machinery industries, this segment's revenues in 1997 were \$299 million.

Andersen Consulting has established relationships on a global basis with all of the world's top 10 original equipment manufacturers (OEMs), including Chrysler, Ford, Nissan, Volkswagen, Harley-Davidson Motor Company, Toyota, Mercedes and Fiat.

The Automotive & Industrial Equipment Industry Segment provides value based service

Electronics & High Tech

Serving the aerospace and defense, software, computers and office equipment, and electrical machinery and equipment segments, Andersen Consulting has established relationships with 16 of the top 25 *Fortune Global 500* computer and electronics companies. This segment's 1997 revenues were \$532 million.

Food & Packaged Goods

Includes food and beverages and consumer products, and serves more than 700 clients representing food and beverage manufacturing, wholesaling, and food retailing worldwide. In 1997, this segment's revenue was \$319 million.

Media & Entertainment

Revenues for Andersen Consulting's Media & Entertainment Industry Segment reached \$114 million in 1997. The practice serves clients whose major product is content, including companies in the Publishing, Printing, Information Services, Entertainment and Advertising industries.

Pharmaceuticals & Medical Products

The Pharmaceuticals & Medical Products Industry Segment's 1997 revenues were \$186 million.

Retail

1997 revenues in the Retail Industry Segment were \$282 million.

- With more than 1700 consultants deployed worldwide, Andersen Consulting has worked with more than 450 retail clients.
- In the United States, Andersen Consulting has worked with eight of the ten largest retailers, including Sears, Roebuck & Company and Dayton Hudson.

Transportation & Travel Services

The Transportation & Travel Services Industry Segment includes passenger transportation, freight transportation and services, lodging, and travel services (travel agencies, hotels, computerized reservation systems, and rental car agencies). 1997 revenues were \$256 million.

- In transportation and travel services, Andersen Consulting continues to leverage its work in Passenger Revenue Accounting (PRA) through its subsidiary enterprise PRA Solutions. The PRA System was originally developed at Northwest Airlines and, by the end of 1996, Andersen Consulting was providing PRA to five major airlines. PRA Solutions offers their PRA system, a passenger revenue accounting solution for the airline industry that combines software, processing services, implementation aids, and expertise. Available separately is a ticket audit service that recovers undercollected amounts equivalent to 0.5% - 2.0% or more of gross airline revenues.

Resources

Chemicals

The Chemicals Industry Segment had 1997 revenues of \$236 million.

- DuPont and Andersen Consulting formalized a 10 year alliance in which Andersen Consulting will provide chemical and energy business solutions designed to enhance DuPont's manufacturing, marketing, distribution and customer service.

Energy

Serving global oil and gas companies, the Energy Industry Segment's 1997 revenues were \$435 million. This industry segment includes energy/upstream (exploration and production) and energy/downstream (refining, distribution and retailing) segments.

Natural Resources

The Natural Resources Industry Segment, comprised of Forest Products, Metals and Mining, generated 1997 revenues of \$206 million.

Utilities

The Utilities Industry Segment grew 31% during 1997 to \$482 million. Andersen Consulting's Utilities Industry Segment consists of more than 2,500 professionals worldwide providing clients with products and services that support all functional areas.

Working on more than 175 utilities projects annually, the Utilities Industry Segment provides expertise in the areas of consumer services, energy delivery, energy management/marketing and trading, power generation/production, enterprise management, and enterprise transformation/strategic services.

Business Integration Centers

Andersen Consulting's business integration centers (BICs) are examples of how the firm's industry markets package the firm's practices and business integration solutions.

The centers are used as follows:

- *Industry Vision*—to demonstrate to executives leading-edge solutions for issues confronting their industry
- *Hands-on Workshops*—to develop solutions for clients outside the constraints of their own working environment
- *Education/Training*—to educate and train Andersen Consulting's employees and clients
- *Applied Research*—to gain a deeper knowledge of leading technologies and management techniques. Also, to creatively apply innovative ideas and these new technologies in a proof-of-concept environment.

Business Integration Centers are as follows:

- SMART STOREs are Andersen Consulting's focused research and development centers for the consumer

- SMART STOREs are Andersen Consulting's focused research and development centers for the consumer industries including retailers, manufacturers, and distributors. The first, SMART STORE® Chicago, has been focused on food and packaged goods since 1989. SMART STORE Europe, in Windsor, UK, also serves the consumer industries.
- In Chicago, The Retail Place explores the retailer industry through consumer trends, market trends, research findings, industry best practices, leading-edge technologies, case-studies and change management issues.
- In Atlanta, Logistics 20•20 focuses on the concept of integrated supply and demand chain management, highlighting the impact of logistics on components of the chain.
- Also in Atlanta, Process 20•20™ is a forum for clients to learn new ideas and try new approaches for the process manufacturing industry.
- In Dallas, the Health Strategy Center explores the processes, choices and underlying technologies within the health industry.
- In Chicago, ENTERPRISE 2020 is dedicated to helping manufacturers of complex products, with an emphasis on the specific needs of the automotive and electronics industries.
- Located in Houston, Oil 20•20 is centered on the business challenges facing oil companies. The Oil 20•20 concept has been extended to facilities in London and Singapore.
- The newest business integration center, the Financial Ideas Exchange in New York, provides a facility which explores the impact of technology on financial services as well as the need to develop and expand product lines
- The business integration center network continues to expand. The Communications Exchange, currently in the planning stages at San Ramon, California, will provide communications clients with similar a center designed for their industry.

Clients

A sample of clients by industry practice is summarized in Exhibit 8 on the following page.

Marketing and Sales

The firm's chief "sales force" consists of its partners. The firm identifies and fosters its client relations through its industries. The partners are, in turn, supported by a marketing and communications organization focused on image, business, and market development. As part of its integrated marketing approach, the firm also promotes a consistent global brand.

Exhibit 8

Andersen Consulting's Industry Practices

Key Clients

Industry Practice/Clients	Industry Practice/Clients	Industry Practice/Clients
COMMUNICATIONS	PRODUCTS	RESOURCES
BellSouth Deutsche Telekom AG Hongkong Telecom IMS Ltd. Iridium LLC Nokia Telecommunications Pacific Bell Telecom Italia Telstra	Automotive & Industrial Equipment Chrysler Fiat Ford Harley-Davidson Motor Company Mercedes Nissan Toyota United Tractors Volkswagen	Chemicals BASF Bayer BOC Borealis BP Chemical Dow Chemical DSM Dupont Grace Henkel Hoechst Celanese Norsk Hydro Roche Shell Chemical
FINANCIAL SERVICES	Electronics & High Tech	Energy
Banking Bank of America Barclaycard (U.K.) Bayerische Vereinsbank (Germany) Caja Espana (Spain) Capital Group Chemical Bank First Bank System Fleet Mortgage Group Great Western Bank GZS (Germany) J.P. Morgan	AMP The Boeing Company Hewlett-Packard LSI Logic McDonnell Douglas Motorola NEC Technologies Packard Bell Polaroid Samsung Electronics	British Petroleum Conoco Royal Dutch/Shell Group

J.P. Morgan London Stock Exchange Northern Trust Corporation SEI Corporation Wachovia	Samsung Electronics Sun Microsystems Texas Instruments	Natural Resources
Health Services	Food & Packaged Goods	Boise Cascade Cyrus Amx Minerals Company Freepor-McMoRan Gold Fields LTV Steel Rautaruuki Thyssen Stahl AG Votorantim Celulose y Papel (VCP)
FHP Health Net	Dial (U.S.) Heinz ICA (Sweden) Nestle Pepsi-Cola International Philip Morris Companies, Inc. Revlon, Inc. Unilever	Utilities
Insurance	Media & Entertainment	Florida Power Northern States Power Southern Company
Allstate AMP (Australia) Eagle Star (U.K.) Fortis, Inc. John Hancock Marsh & McLennan USAA	BroadVision Geffen Records Netscape Wallace	
GOVERNMENT	Pharmaceuticals & Medical Products	
Australian Defense Force City of Philadelphia Government of Victoria (Australia) Montana Department of Revenue Ohio Department of Taxation Province of New Brunswick, Canada State of New York U.S. Air Force U.S. Department of Defense U.S. Department of the Treasury U.S. Social Security Admin.	Astra Hassle Astra Merck Hoechst Marion Roussel Pfizer Pharmacia & Upjohn UK Medicines Control Agency	
	Retail	
	Dayton Hudson Sears, Roebuck & Company	
	Transportation & Travel Services	
	The Atchison, Topeka, and Santa Fe Railroad Company Berliner Verkehrsbetriebe British Rail Board Delta Airlines Deutsche Bahn JR Tokai Northwest Airlines	

Thames Water

Alliances

Partnering with clients and third parties is a key element in Andersen Consulting's solution delivery success.

Client Alliances

- In March 1997, Andersen Consulting, IBM and Ryder Systems established an alliance to develop, set up and operate advanced logistics systems for third party companies. Per the agreement, Andersen Consulting is to take over Ryder's software development units, will be prime for all outsourced IT services and will provide some business consulting services. In this role, Andersen Consulting will also take on a portion of Ryder's 600 staff members that will be transferred to Andersen Consulting as a result of the arrangement.

- In February 1997, Andersen Consulting signed a long-term agreement with, and will become a "smart partner" in the Micro Compact Car AG joint venture between Mercedes-Benz and SMH/Swatch. Micro Compact Car AG (MCC) is responsible for the development, manufacture, and sale of "smart," a city car and mobility concept to be launched in Continental Europe in the spring of 1998. Working together, Andersen Consulting and MCC have designed and implemented the business and production processes for the vehicle.

Application Software & Technology Alliances

Andersen Consulting has a portfolio of alliances with the major hardware and software providers. Depending on market needs, alliances are managed on a global or industry-focused basis.

market needs, alliances are managed on a global or industry-focused basis.

Andersen Consulting global alliances include companies such as, Hewlett-Packard, Oracle, PeopleSoft, SAP, Siebel Systems and Sun Microsystems. Industry-focused alliances include Baan, Manugistics, and Retek.

Additionally, Andersen Consulting has established alliances with leading technology providers including 3Com, Bay Networks, Digital Equipment, Documentum, FileNet, IBM, Informix, Microsoft, Sybase, Viasoft and Viewstar.

- In June 1997, Andersen Consulting and PeopleSoft Inc. announced an alliance to jointly develop PeopleSoft Financials for Federal Government, an integrated financial management system designed to address the specific needs of the U.S. federal government, while offering a solution to the Year 2000 problem.
- In February 1997, North Communications and Andersen Consulting entered into a global marketing agreement. The cooperative agreement will focus on government human services, postal, justice, and public safety agencies. Andersen Consulting will provide business integration and reengineering services for solutions involving multimedia kiosk networks. North Communications will provide the supporting hardware and software.

Competition

Andersen Consulting's major competitors include Electronic Data Systems, IBM, Computer Sciences Corporation, and MCI Systemhouse.

INPUT Assessment

Andersen Consulting's major strengths include its global presence in strategy and change management, its ability to use internal resources or partner effectively (or both) when internal resources alone cannot fill a need, and its willingness to innovate.

Major challenges over the coming year include maintaining growth in a highly competitive business process outsourcing market, maintaining a favorable public image as the proposed dissolution of obligations to Arthur Andersen and Andersen Worldwide proceeds, and expanding successful, but primarily North American, practices such as Resources to other regions.

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Applix, Inc.



UPDATED:
08/01/1996

Headquarters

112 Turnpike Road
Westboro, MA 01581
U.S.

Phone:
(508) 870-0300

Fax:
(508) 366-2278

Company Web Site:
<http://www.applix.com>

Summary Info

President/CEO:	Jitendra S. Saxena
Status:	Public
Employees:	363 (12/1996)
Revenue:	\$ 51.2 mil
Year End	Dec-1996

Key Points

- Applix, Inc. develops, markets, and supports software tools and applications for enabling the Real Time Enterprise: those organizations that seek to gain competitive advantage by converting raw data into effective action in the shortest possible time.
- In June 1996, Applix announced the Applix *Anyware* family of products, the first commercial application solutions to leverage Java to develop and deploy interactive business applications to networked desktops.
- Also in June 1996, Applix announced Applixware to FAME Link and Applixware Real Time DDE Server and Applixware Real Time Subscribe (RTS) to Microsoft Excel.
- In May 1996, Applix and Red Hat Software announced the availability of the Applixware suite of products for the Red Hat LINUX operating system.
- In January 1996, Applix announced that Duetsche Bank was installing Applix Real Time Spreadsheets in its trading rooms worldwide.
- In December 1995, Applix signed a total enterprise and integration agreement with Ericsson.
- In October 1995, Applix acquired Target Systems Corporation, a developer of support automation software.

Company Description

Founded in 1983, Applix is a worldwide provider of solutions for the Real Time Enterprise: those organizations that seek and gain competitive advantages by converting raw data into effective action in the shortest possible time.

- Real time enterprises access data from dynamic, continuous data streams, instantly analyze the options, make decisions, and communicate results.
- Applix markets its products as a set of enterprise tools for building real time-decision support applications and improving customer interaction capabilities.
- Applix's primary product software includes Applixware, Applix Enterprise, and Applix Anyware.

Organization and Structure

Applix is headquartered in Westboro (MA) and maintains domestic sales offices in Dallas (TX), San Jose (CA), New York (NY), and Washington D.C.

The company also has a network of wholly owned international subsidiaries in France, Germany, the Netherlands, Canada, and the U.K.

Applix's key executives are listed below:

Applix, Inc. Key Executives

Name	Title
Jit Saxena	President & CEO
Richard Davis	EVP Sales & Marketing

Patrick Scannell, Jr.	VP Finance/Administration & CFO
Craig Cervo	VP Product Development
Barry Zane	VP Technology
James R. Murphy III	VP Technology, Applix Enterprise
V. Anthony Giannelli	VP Business Development & Marketing
Barry Burke	Director Strategic Product Planning

Financials

Applix's 1995 revenue reached \$32.3 million, a 75% increase over 1994 revenue of \$18.5 million. Net income was \$0.6 million, compared to \$1.4 million in 1994.

- Applix enjoyed growth in both sectors of its business during the 1995 fiscal year, but company financial results suffered an overall decline compared to fiscal 1994 because of a one-time \$6.2 million charge resulting from the acquisition of Target Systems.
- A three-year financial summary follows:

Applix, Inc.

Three-Year Financial Summary

(\$ Millions, except per-share data)

Item	Fiscal Year		
	1995	1994	1993
Revenue	\$32.3	\$18.5	\$9.5
<ul style="list-style-type: none"> Percent change from previous year 	75%	95%	N/A
Income (loss) before taxes	\$0.6	\$1.4	\$(0.4)
<ul style="list-style-type: none"> Percent change from previous year 	(60%)	450%	N/A
Net income (loss)	\$0.6	\$1.4	\$(0.4)
<ul style="list-style-type: none"> Percent change from previous year 	(a) (60%)	450%	N/A
Earnings (loss) per share	\$0.07	\$0.20	\$(0.34)
<ul style="list-style-type: none"> Percent change from previous year 	(70%)	160%	N/A

(a) Includes a one-time charge of \$6.2 million related to the Target Systems acquisition.

Revenue Analysis by Product/Service

Approximately 73% of Applix's 1995 revenue was derived from software licensing a 27% from support services.

In fiscal 1995, Applix experienced growth in both licensing and services.

- Domestic license revenue increased 54% to \$13 million, compared to \$7.1 million for the same period in 1994. This increase resulted primarily from sales generated from the financial services sector.
- Service revenue increased 149% to \$8.7 million, due to increased maintenance revenue from Applix's growing customer base, and to the company's increased emphasis on selling training and consulting services.
- A three-year summary of source of revenue is shown below:

Applix, Inc.

Three-Year Source of Revenue Summary

(\$ Millions)

Product/Service	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Licensing	\$23.7	73%	\$15.0	81%	\$10.4	86%
Services	8.7	27%	3.5	19%	1.7	14%
Total	\$32.4	100%	\$18.5	100%	\$12.1	100%

Interim Results

Revenue for the six months ending June 30, 1996, was \$22.9 million, a 72% increase over \$13.3 million for the same period in 1995. Net income for the first six months of 1996 was approximately \$3.8 million (\$0.35 per share), a 71% increase.

Market Financials

Applix derives its revenue primarily from the financial services, manufacturing/engineering, and telecommunications industries, and the federal government

Geographic Markets

Approximately 55% of Applix's 1995 software license revenue was derived from North America and 45% from international sources.

A three-year geographic summary of source of license revenue follows:

Applix, Inc.

Three-Year Geographic Source of License Revenue Summary

(\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	License Revenue \$	Percent of Total	License Revenue \$	Percent of Total	License Revenue \$	Percent of Total
North America	\$13.0	55%	\$7.1	48%	\$7.0	67%
International	10.7	45%	7.9	52%	3.4	33%
Total	\$23.7	100%	\$15.0	100%	\$10.4	100%

Acquisitions

In October 1995, Applix acquired Target Systems Corporation, a Marlboro (MA)-based developer of support automation software, for approximately \$6 million.

- Target Systems developed support automation software for help desks, customer service, and asset tracking applications.
- Its Target Enterprise product line is now the core of Applix's Enterprise products.

Divestitures

In December 1995, Applix announced a two-for-one split of the company's outstanding common stock. The split was effected in the form of a 100% stock dividend.

Employees

As of December 31, 1995, Applix had 234 employees, segmented as follows:

Marketing and sales	53
Customer support	39
Finance and administration	26
International subsidiaries	55
Other	61
.....	234

Key Products and Services

Applix products are geared toward providing solutions for organizations that seek and gain competitive advantage through converting raw data into action in the shortest possible time.

Applix develops, markets, and supports real-time products, including the *Applixware*, *Applix Enterprise*, and *Applix Anyware* family of products.

Applixware

Applixware for the Real Time Desk is an open suite of integrated personal desktop tools, developed for both UNIX and Windows NT, that enable individual users with time-critical and historical data needs to access, analyze, display, and communicate information from a universal desktop across heterogeneous client/server environments, including the Web. Applications in the *Applixware* family product line include:

- Applix Real Time, a secure, high-performance gateway to accessing real-time data, can be used to link "live" data feeds to Applix spreadsheets with Real Time Desk. Real Time is priced at \$1,995 per concurrent user, and is available in versions that integrate directly with the Reuters Triarch 2000, Teknekon TIB, Micrognosis MIPS, Market Vision Link System, Bridge Data Exchange, and Bloomberg data distribution systems.
- Applix Builder is a cross-platform development tool for building, deploying, and renewing scalable, real-time decision support applications. Applications built with Applix Builder can access live information from any real-time data source available through Applix Real Time. Applix builder is priced at \$2,495 per concurrent user.
- Applix Spreadsheets is a customizable, graphical spreadsheet that offers a full-function, 3-D analysis and modeling tool. Applix Spreadsheets supports "live links" to other *Applixware* modules, including Applix Real Time and Applix Data. Priced at \$695 per concurrent user, Applix Spreadsheets includes filters to support file interoperability and live links with Microsoft Excel and Lotus 1-2-3.
- Applix Words is a customizable, graphical word processor and desktop publisher that serves as the underlying framework for compound documents. Priced at \$695 per concurrent user, Applix Words offers forms capability, information object embedding, live links with other *Applixware* products, customer-developed applications, and third-party applications.
- Applix Graphics is a full-feature drawing, charting, and graphics editing package priced at \$195 per concurrent user.
- Applix Presents is a full-featured, cross-platform UNIX and Microsoft Windows NT presentation environment. Priced at \$495 per concurrent user, Applix Presents provides tools for the creation of presentations that can be authored and

viewed on a variety of workstations, distributed directly on the network or linked to enterprise applications.

- Applix Data is an application that enables information stored in Oracle, Informix, Sybase, and CA-Ingres databases to be live-linked into other Applixware applications. Priced at \$995 per concurrent user, Applix Data allows users to graphically query, access, update, and share information.
- Applix Mail and OpenMail electronically send and receive both Applixware documents and non-Applix files from the workgroup to locations around the world. Applix Mail can automatically filter Applixware documents, spreadsheets, and graphics files into desired file formats specified for each recipient. The price for Applix Mail and Applix Open Mail is \$195 each per concurrent user.
- Applix HTML Author provides development of documents for the Internet or the Web. Retailing for \$195 per concurrent user, Applix HTML Author can automatically convert existing Applix Words documents to HTML templates or map selected document styles to HTML.

Applix Enterprise

Applix Enterprise is an integrated set of support automation applications for handling the data needs of customer interaction environments.

Applix Enterprise software is designed to be compatible with leading packages for network management, automated asset collection, notification technologies, and E-mail.

Products in the Applix Enterprise line include:

- Applix HelpDesk, a graphical call tracking and inquiry management application designed for internal customer support operations through tailorable work flow and resolution technologies. Applix HelpDesk is priced at \$1,095 per concurrent user.
- Applix Service is a graphical problem-management application designed for external customer support. Priced at \$1,095 per concurrent user, Applix Service includes the ability to track multiple contacts per customer, Service Level Agreements, and Return Material Authorizations.

The Applix Enterprise product line also includes the following interfaces:

- Applix WebLink allows real-time access to an organization's support center to create a virtual service environment that meets customers' demands more effectively.
- Applix SupportLink gives customers direct computer access to an organization's support center to log, research, and resolve questions and problems on their own.
- Executive Information Center provides managers and executives with a concise understanding of an organization's operations.
- Applix LifeLine/HA guarantees the operation of an organization's support center even in the event of network or server failure.
- Applix Mobile allows information to be processed and updated without direct connection to the central database.

Applix Anyware

The Applix Anyware family of products is a commercial applications solution that utilizes Java™ technology to build and deploy interactive business applications to networked desktops. Products in the Applix Anyware product line include applications, server products, and tools.

Applications include the following:

- Applix Anyware WebSheet is an interactive, graphical, Webtop spreadsheet with the ability to access real-time and historical data from relational and multidimensional databases. Priced at \$295 per concurrent user, WebSheet is fully compatible with Applix Spreadsheets, and can import and export Microsoft Excel and Lotus 1-2-3 spreadsheets.

Server products include the following:

- Applix Anyware Server is the base platform for all Anyware applications. At least one server per site is required, although multiple servers can be used to provide load balancing for large user communities and complex applications. Priced at \$4,995 per concurrent user, Anyware Server components include:

- *Anyware* Applications Server Software, which provides the platform to publish both content and interactive applications directly to Java-enabled platforms
- *Anyware* HTTP Server Integration Software, which initially supports Netscape's family of UNIX-based HTTP servers via a shared NSAPI library
- *Anyware* Server Configuration Templates and Tools provide utilities to install, maintain, and operate the *Anyware* server software.
- *Anyware* Client Software includes all necessary Java class files and *Anyware* on-line documentation and help necessary for client access to the *Anyware* Server and all *Anyware* applications.
- An Applix *Anyware* WebData Gateway License is required, at \$195 per concurrent user, for each user that requires access to an *Anyware* -supported SQL relational database.
- Applix *Anyware* WebRealTime Gateway is priced at \$995 per concurrent user and is required for each concurrent user that requires real-time data.

Tools include the following:

- Applix *Anyware* Innovators Workbench provides a suite of application development tools and utilities required for building and deploying custom solutions with Applix *Anyware*. A single license is required for each concurrent *Anyware* developer, at \$2,495 each.
- Applix *Anyware* WebSheet Innovators Extension to the Innovators Workbench adds the ability to create custom spreadsheet-based applications, including embedded graphics, buttons, and macros. This product is licensed at \$695 per concurrent user.
- Applix *Anyware* WebRealTime Innovators Extension is for developers creating RealTime applications and, with the base Innovators Workbench or used with the *Anyware* WebSheet, provides access to any supported RealTime Gateway for development and testing. This product is licensed at \$1,995 per concurrent developer.
- The Applix *Anyware* WebSheet Starter Kit contains the Applix *Anyware* Server, a single license for the Applix *Anyware* Innovators Workbench and the Applix *Anyware* WebSheet Innovators Extension, and ten concurrent user licenses for the Applix *Anyware* WebSheet and Applix *Anyware* WebData. This Starter Kit is priced at \$995.

Clients

A sample of Applix's customers include Motorola, NASD, Panasonic, Societe Generale, The Swiss Bank Corp., Bank of Boston, and First Union National Bank.

Additionally, Applix recently reached two agreements with major clients:

- Ericsson signed a total enterprise and integration agreement with Applix under which all components of Applixware and Applix Builder will be made available to Ericsson employees and customers.
- Deutsche Bank AG is installing Applix Real Time Spreadsheets on its IBM RS/6000 workstations worldwide.

Marketing and Sales

Applix has historically focused its marketing efforts on four industry sectors: financial services, manufacturing/engineering, telecommunications, and the federal government, because these markets require prevalent use of 32-bit open computer systems (UNIX and NT workstations and servers) and depend on information analysis and dissemination.

Applix markets its products in North America primarily through a direct sales force. Additionally, the company's sales force works on occasion with strategic marketing partners and resellers.

Alliances

Applix has strategic marketing relationships with leading vendors and systems integrators within targeted industry sectors.

A sample of Applix's partnerships include Dow Jones Telerate, Allen-Bradley, Market Vision, Reuters, TIBCO, and Westinghouse.

Applix also has strategic relationships with a number of companies including Bloomberg, Digital Equipment Corporation, Hewlett-Packard, IBM, Informix Software, Netscape Communications, Oracle, Silicon Graphics, Sun Microsystems, and Sybase.

Additional strategic relationships and alliances include:

- Red Hat Software and Applix have an agreement under which Red Hat bundles Applixware 4.2 with the commercially available version 3.03 of Red Hat LINUX.
- The Math Works, Inc. and Applix have an agreement under which the companies will co-market Applix Link, an interface between their respective MATLAB and Applixware products.
- Applix and FAME have a cooperative marketing agreement that includes joint promotion, seminars, and a sales incentive program.
- Applix has a strategic relationship with Benton Associates, a consulting firm based in Toronto, to provide customers with consultation in the use of Applixware technology and FAME time series data.

Competition

Applix faces competition from various sources with respect to each of the individual applications included in Applixware .

Applix Real Time competes with Lotus Realtime and WingZ RealTime. The other Applixware applications compete primarily with office automation and data access products offered by companies such as Novell, Microsoft, Lotus, Clarity, Frame, Oracle, and Sybase.

Applix Enterprise products compete primarily with products from Remedy, Clarify, Scopus, and Astea.

Applix Anyware products compete with applications developed in-house.

INPUT Assessment

Applix's strengths include:

- Comprehensive product offerings
- The extensive use of company products by major financial and governmental institutions
- Leadership in the evolving real-time information processing market
- Applix Anyware 's Java™ foundation
- Access to a range of data services, relational real-time, and historical data
- Full cross-platform compatibility
- Multilingual product support

Challenges for the future include:

- Competition from established industry players (Microsoft, Novell, Oracle, Sybase)
- Integrating and expanding the Applix Enterprise product line
- Maintaining an innovative position in a rapidly changing and immature market

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Arthur Andersen

**UPDATED:**
05/15/1998**Headquarters**33 West Monroe St.
Chicago, IL 60603
U.S.**Phone:**
312 580 0033**Company Web Site:**
<http://www.arthurandersen.com>**Summary Info**

Partner:	Jim Wadia
Status:	Partnership
Employees:	58,000 (04/1998)
Revenue: *	\$ 5,000.0 mil
Year End	Dec-1998

Capability Profiles**CAPABILITY**
Baan Services**REGION**
U.S.

No main company profile is available for this company.

Click on one of the Capability Profile links
to view this company's capability profile in the market listed.

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Arthur D. Little, Inc.

New
SearchUPDATED:
08/01/1996**Headquarters**Acorn Park
Cambridge, MA 02140-2390
U.S.

Phone: (617) 498-5000 Fax: (617) 492-2337

Company Web Site:
<http://www.adlittle.com>**Summary Info**

President/CEO:	Charles R. LaManita
Status:	Private
Employees:	3,030 (12/1995)
Revenue:	\$ 514.0 mil
Year End	Dec-1995

Key Points

- Founded in 1886, Arthur D. Little, the world's first consulting firm, provides management and technology consulting.
- In 1995, Arthur D. Little acquired Innovation Associates (IA), a consulting company that assists companies to become learning organizations.
- During 1995, Arthur D. Little continued its international expansion, opening twelve offices, including two in the U.S., and ten internationally.
- During 1995, the firm acquired Innovation Associates, Inc., a leading training and consulting firm with expertise in the organizational learning field.
- In February 1995, Arthur D. Little acquired the Joyce Institute, a leading ergonomics consulting firm.
- In a move to grow its presence in the Indian sub-continent, Arthur D. Little entered into an agreement with Industrial Credit and Investment Corporation of India (ICICI), based in Bombay, India.
- In January 1995, the firm entered into an alliance with Seker Management, based in Israel, to jointly market and deliver services to clients in Israel.

Company Description

Arthur D. Little is an employee-owned international management and technology consulting firm providing consulting in three areas--management consulting; environmental, health and safety consulting; and technology and product development.

The firm was founded by Dr. Arthur Dehon Little, a Massachusetts Institute of Technology professor. Arthur D. Little operated as a public firm until June 1988, when shareholders voted to implement the Employee Stock Ownership Plan (ESOP) and the firm became a privately held corporation.

Organization and Structure

Headquartered in Cambridge (MA), Arthur D. Little has 52 offices in 30 countries.

The firm has U.S. offices in Arlington (VA); Cambridge (MA); Chicago (IL); Charleston (SC); Washington D.C.; Santa Barbara, San Francisco, Palo Alto, and Los Angeles (CA); Houston (TX); Philadelphia (PA); Seattle (WA); and New York (NY).

The firm's international offices are located in Abu Dhabi, Berlin, Bogota, Bombay, Brussels, Buenos Aires, Cambridge (U.K.), Caracas, Copenhagen, Dusseldorf, Gothenburg, Harrogate, Hong Kong, Jeddah, Kuala Lumpur, Lisbon, London, Madrid, Mexico City, Milan, Monterey, Moscow, Munich, Paris, Prague, Riyadh, Rotterdam, Sao Paulo, Seoul, Singapore, Stockholm, Sydney, Tokyo, Toronto, Vienna, Wiesbaden, and Zurich.

Arthur D. Little has six subsidiaries as follows:

- Arthur D. Little Program Systems Management Company (PSMC), based in Cambridge (MA), manages and staffs major projects for industrial firms and government.
- Arthur D. Little Management Education Institute, Inc. (MEI), based in Cambridge (MA), is the professional education component of Arthur D. Little, Inc.
- Arthur D. Little Enterprises, Inc., based in Cambridge (MA), manages the commercialization of proprietary technology and develops equity opportunities for the parent company.
- Cambridge Consultants Ltd., Cambridge (England), provides technology consulting services, including research,

- development and deployment.
- Innovation Associates, Inc., acquired by Arthur D. Little in 1995, focuses on areas of leadership development, systems thinking, implementing organizational learning systems, developing high-performance teams, and leading change implementation.
- The Joyce Institute, acquired in February 1995, is a ergonomics consulting firm.

Company Strategy

In 1994, Arthur D. Little, with half of its revenues coming from outside the U.S., successfully transitioned into an international firm. With respect to its expansion strategy, the firm is rapidly pursuing both a global, as well as regional, expansion program.

The firm is venturing into emerging markets such as India, Latin America, and Poland through alliances and new offices.

Financials

Arthur D. Little's 1995 revenue was \$514 million, a 19% increase over 1994.

A three-year revenue summary follows:

**Arthur D. Little, Inc.
Three-Year Revenue Summary
(\$ Millions)**

Item	Fiscal Year		
	1995	1994	1993
Revenue	\$514	\$433	\$385
<ul style="list-style-type: none"> Percent change from previous year 	19%	13%	5%

Revenue Analysis by Product/Service

In 1995, INPUT estimates that approximately 12% of Arthur D. Little's worldwide revenue was derived from professional consulting services in the information services field.

Arthur D. Little derived approximately 72% of its revenue from management consulting; 14% from technology and product development; 12% from environmental, health, and safety consulting, and 2% from other areas.

Market Financials

Arthur D. Little's clients include more than 75% of the Fortune 100 companies (or their global equivalents).

The firm's global knowledge of best practices is built on guiding change in major industries, including--automotive; chemicals; consumer goods; energy; engineering and manufacturing; financial; health care; metals and resources; pharmaceuticals and medical products; postal organizations; public administrations; telecommunications, information and electronics; transportation; travel, tourism and hospitality; and utilities.

Arthur D. Little's typical business volume includes performing services for clients in more than 60 countries worldwide. More than 85% of the firm's business comes from repeat clients. Annually, the firm works on approximately 2,500 assignments.

Geographic Markets

INPUT estimates that approximately 40% of Arthur D. Little's total 1995 revenue was derived from the U.S. and the remaining 60% was from Europe and other international sources.

Employees

As of December 1995, Arthur D. Little had 3,039 employees. Of these, 1,795 were consultants.

Acquisitions

During 1995, Arthur D. Little acquired Innovation Associates, a leading training and consulting firm specializing in organizational learning.

- The company was co-founded by Charles Kiefer, a pioneer in the development of organizational learning, and Dr. Peter M. Senge, author and Director of the Organizational Learning Center at the Massachusetts Institute of Technology's Sloan School of Management.
- Innovation Associates' clients have included AT&T, Federal Express, General Foods, IBM, Motorola, Xerox, Intel, and Monsanto, as well as other Fortune 1000, government, and health care industry organizations.

In February 1995, Arthur D. Little acquired The Joyce Institute, a leading ergonomics consulting firm headquartered in Seattle (WA) and headed by founder Marilyn Joyce.

- The Joyce Institute provides a range of ergonomics consulting services in office, industrial, and laboratory environments, as well as providing expertise in product design.
- The company helps companies identify causes of injuries and shows them how to apply ergonomic criteria to modify existing work areas.

Key Products and Services

Arthur D. Little offers services through three main lines of business: management consulting; environmental, health, and safety consulting; and technology and product development.

Management Consulting

Management consulting services are offered in eight core areas as follows:

- Strategy
- Customer management
- Information management
- Organization management
- Supply chain management
- Technology and innovation management
- Corporate finance management
- Manufacturing management

Environmental, Health and Safety Consulting

This group integrates technological expertise with management vision to provide services that include:

- Advanced chemical fingerprinting
- Environmental, health and safety auditing
- Environmental impact assessment
- Environmental strategy
- Ergonomics
- Industrial hygiene
- Management systems
- Natural resource damage assessment
- Occupational safety
- Pollution prevention
- Process safety
- Qualified risk assessment
- Radiation safety
- Remediation
- Risk management
- Safety management
- Site assessment

- Technology assessment
- Training
- Transportation safety

Technology and Product Development

This group is technology-focused and business-driven and offers services that include:

- Product development
- Technology assessment
- Technology development
- R&D management

Clients

A sampling of Arthur D. Little's significant clients is shown in Exhibit B on the following page.

Marketing and Sales

Arthur D. Little has made strategic investments in its marketing process such as:

- Hiring a senior advertising and marketing strategist, Allan Steinmetz, to the post of Senior Vice President and Corporate Director of Marketing and Communications
- Recruiting other senior staff
- Retaining advertising and global public relations agencies
- Marketing through an integrated communications approach, including public relations, database marketing, advertising, and relationship building forums around the world

A key and consistent marketing approach for over 100 years is the codification and publication of management books.

Recent examples of Arthur D. Little's business management books include:

- *Product Juggernauts: How Companies Mobilize to Generate a Stream of Market Winners*
- *The Unwritten Rules of the Game*
- *Third Generation R&D*

Alliances

In seeking to meet and anticipate the needs of its worldwide clients, Arthur D. Little has formed a number of alliances as follows:

- In May 1995, Arthur D. Little formed an alliance with Seker Management of Israel to pursue joint business engagements in Israel, in areas that complement the firm's strategic competencies.
- Arthur D. Little has an agreement with ICICI, based in Bombay, India. The two firms will work together on some assignments, as well as be involved in joint marketing and business development. Arthur D. Little will focus on management restructuring, while ICICI will be involved in financial restructuring of Indian businesses.

Competition

Arthur D. Little's competitors include traditional management consulting firms, environmental consulting firms, and technology and product development firms.

The firm faces significant competition from major consulting firms, including McKinsey & Company, A.T. Kearney (EDS), Andersen Consulting, Coopers & Lybrand, Booz Allen & Hamilton, Gemini Consulting, CSC Consulting, Mercer Management Consulting, and Monitor.

Exhibit B
Arthur D. Little, Inc.

Clients

AGIP	General Motors	Procter & Gamble Company
Allianz Worldwide	The Gillette Company	Prudential Insurance Company of America
Allied Signal, Inc.	Glaxo Holdings	Public Service of New Mexico
American Express	Hewlett-Packard	Roche Pharmaceuticals
Amoco	Hitachi	Samsung Group
Apple Computer, Inc.	Hong Kong Mass Transit Railway Corporation	Sandia National Laboratories
AT&T Bell Laboratories	IBM	Scott Aviation
BankAmerica Corporation	Intuit, Inc.	Sears Roebuck
Baxter International	Johnson & Johnson	Royal Dutch/Shell Oil Group
Boeing	LG Group	Siemens Group
British Petroleum	L.L. Bean, Inc.	State Farm Group
CEMEX	Lockheed Martin	Sumitomo
Chevron	Marion Merrell Dow, Inc.	Texaco
Chrysler Corporation	Matsushita Electric	Thomas cook Group
Citicorp	Merck & Company, Inc.	3M
The Coca-Cola Company	Metropolitan Life Insurance	Tokyo Electric Power
Conagra	Mitsubishi	Toshiba
Coopers & Lybrand	Mitsui & Company	Toyota
Corning Incorporated	Mobil	Unilever
Daimler-Benz Group	Monsanto	Union Carbide Corporation
Digital Equipment Corporation	Motorola, Inc.	United Kingdom Department of Transport
The Dow Chemical Company	NASA	United Parcel Service
Du Pont	Nestle	United States Department of Energy
Ethicon Endo-Surgery	Nippon Telephone & Telecommunications	Volkswagen Group
Exxon	Nissan Motor	Volvo
Federal Express	Neutronics	Westinghouse
Fiat Group	Northern Telecom]	Whirlpool Corporation
Frito-Lay, Inc.		

Ford Motor Company	PepsiCo	Xerox Corporation
Gas Research Institute	Pfizer Pharmaceuticals	Yacimientos Petroliferos Fiscales (YPF)
General Electric Company	Philip Morris	

INPUT Assessment

Arthur D. Little feels its strengths include:

- An approach to building strong client involvement and a focus on team/client learning
- The expertise of its consultants in a diverse set of industries and technologies
- A strong client base
- A global focus
- The ability to organize global teams in many industries
- A strong portfolio of diverse products
- The ability to innovate quickly

Challenges for the coming year include:

- Continuing to attract and retain industry experts
- Maintaining an aggressive expansion program

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AT&T Solutions

New
Search**UPDATED:**
06/01/1996**Headquarters**

1300 I Street, NW
Suite 1100
Washington, DC 20005
U.S.

Phone:
(202) 414-6800

Company Web Site:
<http://www.att.com/solutions>

Summary Info

President/CEO:	Richard R. Roscitt
Status:	Subsidiary
Parent:	AT&T Corporation
Employees:	11,000 (12/1996)
Revenue: *	\$ 570.0 mil
Year End	Dec-1996

Capability Profiles

CAPABILITY	REGION
Intranet Development	U.K.
Outsourcing Services	U.S.

Key Points

- AT&T Solutions was formed by AT&T in February 1995 to marshal all of its capabilities in information and technology management to provide large corporations with a single source for network-centric solutions.
- During its first year of operation, AT&T Solutions grew from 5,000 to more than 11,000 employees.
- In April 1996, AT&T Solutions opened the first of six Global Client Support Centers in Durham (NC) to provide clients with virtual networking management services.

Company Description

AT&T Solutions provides consulting, systems integration, and outsourcing (systems operations) services to more than 200 clients worldwide.

- The company designs, builds, and manages networking solutions that combine the power of computing and communications.
- AT&T Solutions also draws on the resources of AT&T (public, private, and wireless networking, networked computing, premises voice, video, text, and data products) and the technological expertise of AT&T Laboratories to serve its customers.
- AT&T Solutions targets the Global 2000--the 2,000 largest global organizations within seven industries. Major industry groups served by AT&T Solutions include financial services; manufacturing and distribution; retail and wholesale; transportation and hospitality; media, entertainment and communications; utilities and energy; and health management.

Organization and Structure

AT&T Solutions is headed by Victor E. Millar, formerly president of Unisys Corporation's Worldwide Information Services. Mr. Millar reports directly to AT&T's president and COO, Alex Mandl.

AT&T Solutions is organized into three practice areas as follows:

- The Consulting practice is headquartered in Washington, D.C.
- The Systems Integration practice is headquartered in Vienna (VA).
- The Outsourcing practice is headquartered in Florham Park (NJ).

AT&T Solutions' practices are supported by the following units:

- Industry Planning provides cross-industry strategic planning, information, and coordination.
- Technology Planning provides AT&T Laboratories' advanced technologies and innovations.

- Market Management is responsible for strategic market management, image advertising, growth planning, and analyst relations.
- Global Sourcing supports the firm by providing access to knowledge capital.
- Professional Practices is responsible for methodologies, professional development and training, and client satisfaction monitoring and evaluation.
- Human Resource manages the company's human resource functions.

AT&T Solutions' current organization is shown in the exhibit on the following page.

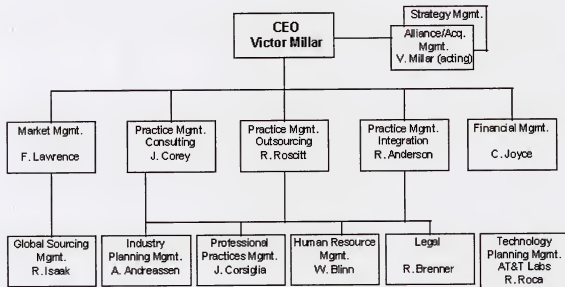
In addition its headquarters in Washington, D.C., AT&T Solutions has U.S. offices in the metropolitan areas of Atlanta, Boston, Chicago, Dallas, Detroit, Jacksonville, Los Angeles, New Jersey, New York, San Francisco, and Washington, D.C.

International offices are in Beijing, Gurgaon, Hong Kong, Kuala Lumpur, Manila, Melbourne, Seoul, Singapore, Sydney, Tokyo, Amsterdam, Brussels, Frankfurt, Geneva, London, Madrid, Metz, Milan, Munich, Oslo, and Paris.

Company Strategy

AT&T Solutions' mission is to "establish long-term, professional services relationships with senior executives of the largest enterprises worldwide helping them transform the rules of competition in their industry through electronic commerce."

Exhibit AT&T Solutions Organization



According to AT&T Solutions, electronic commerce creates interdependencies between a company's value chain and the value chains of its suppliers and customers. The company that optimizes, or coordinates, those links to the outside creates competitive advantage. Electronic commerce will spawn new businesses and transform industries.

AT&T Solutions serves as its clients' "strategic ally," helping them FuturizeSM their organizations by leveraging AT&T's capabilities.

- AT&T Solutions believes businesses must shift toward managing what is done today from the perspective of what the future will be. The companies that Futurize--manage the present from the future--will gain competitive advantage through innovative electronic commerce processes.
- AT&T Solutions' three integrated practices provide the expertise to manage the challenges of keeping up with the current status and anticipating future trends.
- With an in-depth understanding of client's business needs and vision, AT&T Solutions designs, builds, and operates the best business solutions to Futurize their investments in technology, improve their profitability, and create sustained, competitive advantage.

Specific elements of AT&T Solutions' strategy includes:

- Seven industry focus
- Targeting Global 2000 companies
- Electronic commerce at the forefront of business transformation and growth

AT&T Solutions targets the growing number of Global 2000 business customers who want total, end-to-end solutions for their information and networking technology needs and want a single supplier to manage their information resources so they can concentrate on their core businesses

Financials

INPUT estimates AT&T Solutions' worldwide revenue for 1995 was \$550 million. It is estimated that the company's current run-rate is \$1 billion.

Revenue Analysis by Product/Service

INPUT estimates AT&T Solutions' 1995 information services revenue was segmented approximately as follows:

Systems operations	
(outsourcing)	70%
Systems integration	20%
Professional services	
(consulting)	10%
	100%

Market Financials

AT&T Solutions targets seven industry groups--financial services; manufacturing and distribution; retail and wholesale; transportation and hospitality; media, entertainment and communications; utilities and energy; and health management.

Geographic Markets

AT&T Solutions derives revenue from U.S. and international clients.

Employees

AT&T Solutions currently has more 11,000 employees.

Key Products and Services

AT&T Solutions delivers its services through personnel organized into three practice areas--Consulting, Systems Integration, and Outsourcing.

Outsourcing

AT&T Solutions can take responsibility for managing and operating voice, data, and video networks, from legacy systems, desktop, and premises equipment and applications, to global voice and data networks and business processes.

Networking operations services provided by AT&T Solutions include the following:

- IT outsourcing

- Networking management
- Networking computing and premises management
- Data center management
- Business process management—Services in this area include sales, lead generation, customer service, product support, account management, dealer locator, customer help desk, and relationship management.
- Transaction platforms management

In April 1996, AT&T Solutions opened the first of its Global Client Support Centers (GCSC) in Durham (NC).

- The two-story, 70,000-square-foot facility is the first of six centers AT&T Solutions plans to open worldwide. It is equipped with advanced information technology to provide virtual networking management services globally.
- The GCSC network infrastructure enables customized, end-to-end, remote information management functions such as local-area network (LAN) and wide-area network (WAN) management, management report generation, and desktop software support, supporting a full suite of multivendor voice and data IT environments.
- The center is scalable and can evolve with client requirements and is built around a center-of-excellence, client-focused team environment.
- The GCSC offers four integrated IT competencies:
 - Help management—as a single point of contact to the client, the client team moves beyond the industry-standard help-desk by focusing on business improvements gained through proactive, integrated monitoring and management of the client's network, components and applications
 - Networking management—client associates specialize in predictive, end-to-end management of voice, video, and data services from desktop to desktop; additionally, they provide fault, performance and trend analysis, capacity planning, configuration management, complex provisioning/installation support, and supplier management
 - Business management—client associates provide services that include product procurement, provisioning, inventory and asset management, and billing support such as expense verification and chargeback services
 - Networked computing and premises management—client associates direct the operation and physical management of the client's LANs, PCs/workstations and servers, standard and custom applications, and multimedia, premises-based information technology systems such as PBXs, voice processing systems, and videoconferencing systems.
- The center also provides a gateway to AT&T's global technical and networking resources, including World Partners, SDN Networking Services, WorldNet Internet and emerging services, Interspan, frame relay, ATM SONET, wireless, and local access.
- The center, which will employ up to 560 people, operates seven days a week, 24 hours a day and has disaster recovery, backup processing-servers and backup generator power.

Consulting

AT&T Solutions provides consulting services to help corporations define and direct business objectives, design business processes, plan and design enterprise architecture, including the computing tools and communications infrastructure necessary to achieve the desired results.

AT&T Solutions' consulting personnel with industry expertise are aligned with researchers from AT&T Laboratories to form client service teams with industry knowledge and understanding of electronic commerce technologies. These teams:

- Introduce ideas to clients and help clients with their own ideas
- Assist clients in evaluating alternatives and setting priorities
- Design new processes, the architecture needed for the network and systems, the migration plan, and the change management process.

AT&T Solutions' Consulting practice has four centers of excellence:

- Customer management
- Change management
- Business process redesign
- Information planning (including architecture and migration planning)

Systems Integration

AT&T Solutions' Systems Integration practice rapidly develops and integrates custom business systems to implement client strategies.

- The company leverages distributed object computing, AT&T communication and data networking, and expertise in complex program management involving multiple vendor platforms and software.
- The Systems Integration practice also works with the Consulting and Outsourcing practices and with AT&T Laboratories to deliver solutions to its clients.

The Advanced Technology Center, headquarters for the Systems Integration practice, provides common space, a development environment and laboratory facilities to deliver electronic commerce solutions to its customers.

Contracts

In May 1996, AT&T Solutions, J.P. Morgan, Computer Sciences Corporation, Andersen Consulting, and Bell Atlantic Network Integration announced an agreement in principle to form a strategic alliance (the Pinnacle Alliance) to manage parts of J.P. Morgan's global technology infrastructure. The value of the seven-year agreement is estimated at more than \$2 billion.

- The alliance will manage the firm's data centers in New York, London, and Delaware; distributed computing operations (such as desktop support and local-area networks); and voice and data services in New York, London, Delaware, Paris, and certain internal corporate applications in the U.S. and Europe.
- AT&T Solutions will be responsible for global network operations management.

In May 1996, AT&T Solutions announced a six-year, \$500 million network management outsourcing deal with Merrill Lynch to manage and support the frame-relay-based network of 630 Merrill Lynch branches around the world, plus call centers and data centers.

- The contract calls for AT&T Solutions to provide and manage networking capabilities for Merrill Lynch's Trusted Global Advisor platform which allows Merrill Lynch consultants to provide immediate service to their clients on a worldwide basis.
- AT&T Solutions will provide AT&T platforms and AT&T systems management technology and tools, implementation assistance, Global Client Support Center services, call center management services, and program management.
- The contract will also consolidate a variety of services currently delivered by other service providers

In April 1996, MasterCard International awarded AT&T Solutions a multimillion-dollar contract to design, build, and support a new global transaction processing network to support MasterCard's global business activities.

AT&T Solutions is working with First National Bank of Chicago to develop, operate and maintain the Federal Tax Payment System for the U.S. Treasury.

In November 1995, AT&T Solutions was awarded a five-year contract worth more than \$24 million to design and manage a global telecommunications network for McDermott International. AT&T Solutions will deploy and manage McDermott's enterprise-wide communications capabilities for voice, video, and data. This will include a global wide-area network with distributed router management, AT&T Software Defined Network service and AT&T InterSpan Frame Relay service.

In May 1995, AT&T Solutions was awarded a 10-year service agreement to design and manage a new telecommunications system for railroad CSX Transportation Inc.

Clients

AT&T Solutions has a customer base of 200+ clients. A sampling of clients by industry follows:

- *Financial Services*- First Chicago, MasterCard International, Merrill Lynch, Solomon Brothers, Fidelity Investments
- *Manufacturing* --3M, AlliedSignal, PPG
- *Retail/Wholesale* -J.C. Penney, Mercantile Stores, the Southland Corporation
- *Transportation/Hospitality* --CSX, Consolidated Freightways
- *Media* -Continental Cable
- *Utilities/Energy* --McDermott International, Ohmeda Gas
- *Health Management* --McKesson, Equitable Life

AT&T Solutions has a number of other clients whose relationships are confidential.

Marketing and Sales

AT&T Solutions markets its services through image/awareness building and other marketing communications efforts.

Competition

AT&T Solutions' competitors, by service area, include the following:

- *Consulting*-- McKinsey & Co., Booz-Allen & Hamilton, Bain & Co., AT Kearney, and Boston Consulting Group
- *Systems Integration*-- Andersen Consulting, EDS, American Management Systems, IBM ISSC, and Unisys
- *Outsourcing*-- EDS, MCI/SHL, IBM ISSC, Computer Sciences Corporation, and Andersen Consulting

Assessment

AT&T Solutions considers its strengths to include:

- Leading edge electronic commerce initiatives to create competitive advantage and change the rules of competition
- World-class talent with specific industry expertise
- AT&T quality reputation and resources
- AT&T Laboratories
- The Global Client Support Center, which can manage a client's entire infrastructure, from desktop to desktop, while providing a gateway to AT&T's network resources

Challenges over the coming year include:

- Continuing to recruit qualified professionals to meet business demands
- Continuing an aggressive worldwide expansion plan

Parent Company

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Atos Group



UPDATED:
06/01/1997

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92067 Paris, La Defense Cedex
France
Phone: +33 1 49 00 90 00 **Fax:** +33 1 47 73 07 63
Company Web Site:
<http://www.atos-group.com>

Summary Info

CEO: Bernard Bourgeaud
Status: Public
Employees: 8,500
Revenue: \$ 410.0 mil
Revenue (FF mil): 6,200.0
Year End: Sep-1996

Capability Profiles

CAPABILITY	REGION
Call Center Operations (French)	France
Help Desk Services	Europe

Key Points

- Atos is a leading France-based provider of IT services in France and internationally. Approximately a third of t company's revenue is generated outside France, with Germany as the biggest market.
- Atos is the new name of the company created from the merger of Axime, Sligos, and the outsourcing business o GSI. The legal merger takes place on 1 July 1997.
- Atos has a strong heritage in the banking, finance, and insurance sectors through Axime and Sligos. The ADP-acquisition provides Atos with a foothold in other industry sectors.
- The company is seeking to expand its international business, with initial priority given to Germany, the U.K., Spain.

Company Description

Axime and Sligos announced their intention to merge in October 1996. This action united the second and third largest services companies based in France.

- Sligos was created in 1974 through the merger of Sliga, a subsidiary of Credit Lyonnais, and Cegos Informatiq company had revenue in 1996 of FF 4 billion.
- Axime Group was founded in 1990 as a result of the merger between the French companies FITB, Séguin, and Sodinforq. In fiscal 1996, the company had revenue of FF 2.1 billion.

In December 1996, Axime also bought ADP-GSI's outsourcing business, which now forms an important part of Atos.

A major part of Axime's service portfolio was processing services, such as payment systems, telematics, and securities processing.

The Sligos organization brings a heritage in computerized funds transfer, smart cards, and other bank and finance tra to Atos Group.

The outsourcing business from ADP-GSI provides Atos with capabilities in the manufacturing, transport, and distribu sectors, and expands the company's business in the U.K.

Operations and Structure

Atos' main shareholder is Compagnie Financiere de Paribas, which owns a 13.2% interest. The rest of the shares are

large institutional investors and the public. Atos is listed on the monthly settlement market of the Paris Bourse.

Atos has 8,500 employees and is now the fifth-largest European-based IT services company. The company has operations in France, Germany, Italy, Spain, Switzerland, Benelux, Portugal, and the U.K.

Exhibit 1 shows the senior management of Atos Group.

Exhibit 1

**Atos Group
Key Executives**

Name	Position
Henri Pascaud	Chairman of the Supervisory Board
Bernard Bourigeaud	Chairman of the Executive Board & CEO
Dominique Illien	Vice Chairman of the Executive Board & COO
Alain Bridenne	Exec. VP, Professional Services & Systems Integration
Francis Delacourt	Exec. VP, Outsourcing
Guy Fourneau	Exec. VP, Services
Eric Guilhou	VP, CFO
Jean-Luc Lenart	VP, Strategy & Development
Jean-Marie Vezin	VP, Human Resources

Atos is divided into four operating divisions:

- Professional Services & Systems Integration, which is the largest division with 3,600 employees
- Services, with offerings in areas such as processing services and call centers. This division has 3,250 employees
- Outsourcing, which covers all outsourcing and facilities management services, with 1,300 employees
- Multimedia, which offers services such as Internet and intranet technologies, on-line services, electronic commerce value-added network services

Company Strategy

Atos generates almost half its revenue in the banking and finance sector. However, the company is also targeting other industry sectors where the deployment of IT is important for providing better customer service and gaining competitive advantage. Atos' focus markets are:

- Banking, finance, and insurance
- Telecommunications and media
- Utilities
- Retail
- Automotive
- Transportation

- Healthcare

Currently, the company generates 27% of its revenue outside France. Atos is committed to continuing its international expansion, especially in Europe. The company intends to fulfill this by:

- Supporting its large European customers in their international expansion
- Strengthening its position where it already has operations, particularly in Germany and the U.K.
- Expanding in the U.S. through partnerships that will introduce Atos' products and services in this market

Acquisitions/Divestitures

Acquisitions

The major recent activity in this area is the merger of Sligos and Axime. Under the terms of the merger, Axime offered exchange of six Axime shares for five Sligos shares. The share exchange was launched in December 1996 and had a value around \$670 million. As mentioned earlier, the legal merger will take effect on 1 July.

In December 1996, Axime acquired the outsourcing arm of ADP-GSI for approximately \$38 million. This acquisition is Axime's outsourcing operations, principally in France and the U.K. The focus markets of this operation are transport, distribution, and manufacturing, with annual revenue of around \$120 million. The outsourcing business, which was part of GSI, was considered non-core since ADP acquired GSI in 1995, explaining the low acquisition price.

Other recent acquisitions include:

- January 1997-Intelco and Q-Bos
- November 1996-Penny Dialogmarketing
- October 1996-Phoneperformance

Divestitures

In December 1996, Axime sold its subsidiary Axime Ingenierie SA with 1,000 employees and revenue of around \$65 million for £18.4 million.

In November 1996, Sligos disposed of its Solaic subsidiary, a smart card manufacturer, which was considered non-core strategic direction of Atos.

Financial Information

Atos Group's fiscal year end is 30 September. Since Axime's financial year was to 30 June and Sligos followed the calendar year, this makes financial analysis of the new company difficult at this stage.

Atos has reported that for the first six months of its FY97, ending 31 March 1997, the company had revenue of FF 3.1 billion, excluding sales from discontinued operations and including acquisitions. This represented an increase of 20.9% the revenue calculated for the same period a year earlier. Of the revenue growth, 6.8% came from organic growth in SI Axime, while 14.1% was from acquisitions.

In the second quarter of the period, revenue grew by 20.2% over 2Q96, of which 5.9% was from organic growth. Acquisitions accounted for 14.3% of the increase, mostly accounted for by the acquisition of ADP-GSI's outsourcing business.

Exhibit 2 shows Axime's revenue for the past five financial years. In FY96, Axime reported a net profit of 135 million francs.

Exhibit 3 provides an overview of Sligos' revenue from 1992 to 1996. For 1996, Sligos reported a net result before good merger costs of 242 million francs.

Atos forecasts revenue for FY97 of FF 6.3 billion, which is almost flat over a calculated 1996 revenue figure that includes ADP-GSI outsourcing business.

Exhibit 2

Axime
Five-Year Revenue Summary (FYE 30 June)

Year	FY92	FY93	FY94	FY95	F
Revenue (FF Billion)	2.2	1.9	1.8	2.1	
Revenue (\$ Million)	423	365	346	404	
Percent change from previous year	0%	14%	0%	11%	
Revenue per employee (FF Million)	N/A	0.758	0.712	0.791	
Revenue per employee (\$ Million)	N/A	0.146	0.137	0.152	

Source: Atos

a) Exchange rate used is 5.2 FF to 1 U.S.\$ Source: INPUT

Exhibit 3

Sligos
Five-Year Revenue Summary (FYE 31 December)

YearFY96					
Revenue (FF Billion)	3.64	3.81	4.1	4.3	
Revenue (\$ Million)	700	733	788	827	
Percent change from previous year	11%	13%	8%	5%	-
Revenue per employee (FF Million)	0.637	0.612	0.656	0.680	
Revenue per employee (\$ Million)	0.123	0.118	0.126	0.131	

a) Exchange rate used is 5.2 FF to 1 U.S.\$ Source: INPUT

Exhibit 4 shows projected revenue by operating division, as provided by Atos.

Exhibit 4

Atos Group
FY97 Revenue by Operating Division (FF Billions)

Division	Revenue	Percent of Total
Professional Services and Systems Integration	2.3	36%

Services	2.2	36%
Outsourcing	1.2	20%
Multimedia	0.53	8%
Total forecasted revenue	6.3	100% Source: Atos

Source: Atos

Market Analysis

Exhibit 5 shows INPUT's estimate for Atos' calculated 1996 revenue by service mode. The estimates includes the effect recent acquisitions/divestitures.

Exhibit 5

Atos Group Revenue by Service Mode, 1996 (\$ Millions)

Service Mode	Revenue	Percent of Total
Processing Services	310	25%
Outsourcing	230	19%
Systems Integration	200	17%
Professional Services	180	15%
Network Services	155	13%
Customer Services	60	5%
Other	60	5%
Total Software and Services	1,200	100%

Exchange rate: FF 5.2 to 1 U.S.\$

Source: INPUT estimates
Numbers are rounded

Exhibit 6 shows the forecasted division of revenue by industry sector, as provided by Atos.

Exhibit 6

Atos Group FY97 Revenue by Industry Sector (\$ Millions)

Industry Sector	Revenue	Percent of Total
Banking, Finance & Insurance	600	48%
Manufacturing	188	15%
Telecommunications & Media	162	13%
Government Services and Utilities	137	11%

Automotive Transport	88	7%
Retail Distribution	75	6%
Total Software and Services	1,250	100%

a) Exchange rate: FF 5.2 to 1U.S.\$

Source: Atos and INPUT Estimates

Geographic Markets

Strategic directions for Atos include expanding its business outside its domestic market. Exhibit 7 shows Atos' revenue country for FY97.

Exhibit 7

Atos Group Revenue by Region FY97 (\$ Millions)

Region	Revenue	Percent of Tot
France	912	73%
Germany	213	17%
Rest of Europe	125	10%
Total	\$1,250	100%

Key Products and Services

Atos offers a wide range of information services with particular focus on the banking and finance sector. The following an overview of the company's main services by operating division.

Services

Atos' activities in this division fall into the following main areas:

- Call centers-Atos has more than 1,000 full-time operators handling more than 15 million calls a year.
- Direct marketing, including logistical services and database management
- Transaction processing services, which include on-line collection of card and check transactions, management o and enabling secure access to electronic distribution channels such as EDI and the Internet. The company man almost 1.5 billion transactions a year.
- Check and other document processing services, including interbank payment tickets. Atos also offers high-secu document printing and the management of contracts, subscriptions, invoicing, and payments. The company pro more than a billion documents a year.

Atos' services customers include American Express, Berliner Bank, Esso, Societe Generale, Telefonica, and Volkswagen

Outsourcing

Atos' outsourcing services cover:

- Integrated outsourcing, through which Atos offers to manage the operation of all or part of the customer's IT installation. Services cover both mainframe and distributed systems, including consulting, applications management and operations management. The company will include standards for performance, quality, upgradeability, and reversibility in its contracts.
- Specialized outsourcing, such as managing processes for securities trading for banks and stock brokers. Special outsourcing involves operations, applications, and distributed systems management.

Under its applications management services, Atos will design and install new systems as well as making existing applications compliant to Year 2000 and the single European currency.

The acquisition of ADP-GSI's outsourcing business approximately doubled the combined Axime/Sligos activities in this area. The company is now among the largest outsourcing companies in France.

Customers of Atos' outsourcing services include BNP, Credit Lyonnais, Milk Marque, Potain, and Societe de Bourses Francaises.

Professional Services & Systems Integration

Atos offers a full range of services for designing, developing, installing, and maintaining information systems, such as:

- Systems integration projects
- Networks
- Consulting, technical support, and training
- Multiyear services, such as applications maintenance and network support provided under three- to five-year contracts with guaranteed performance standards, and often provided as a natural extension to systems integration contracts

Atos' systems integration expertise includes the following areas:

- Securities trading rooms
- Electronic fund transfer systems
- Banking software
- Network communications management between software packages
- Integration of intelligent networks for telecom operators

Atos' technology portfolio includes Teknekron, the world's most frequently used trading room software, and the installed integrated management systems, such as SAP and MFG/PRO.

The company also has experience in developing customized payment systems and point-of-sale systems.

Among the major customers of this part of Atos' business are the European Commission, Deutsche Bank, Fiat, France Global One, and Swiss Telecom.

Multimedia

Atos has a large multimedia information retrieval center from which it offers a number of services. These include:

- On-line services
- Electronic commerce
- Specialized on-line services
- Internet/intranet services
- Value-added network services

Through this division, Atos offers expertise in creation and management of on-line services, integrating the full range videotex, audiotex, fax, and Internet technologies, as well as Internet access provider (IAP) services.

As part of its international operations, Axime has developed audiotex services in Belgium, the Netherlands, Germany, Italy.

Major customers for the Multimedia business are France Television, the French Post Office, Peugeot, Prisma Presse, Wolters Kluwer.

Alliances

In December 1996, Axime and Microsoft entered into an agreement under which Atos will use Microsoft's Merchant S its Internet Security Framework for its electronic commerce service.

Atos also has a joint venture with Stratus Computer in Germany, formed in January 1996. The two partners hold equ in Astria, the joint subsidiary. Astria specializes in integrating automated payment systems.

Atos further has various partnership and alliance agreements with:

- Bull
- Digital
- Hewlett-Packard
- IBM
- qad
- SAP
- Tandem
- Tibco

Clients

Exhibit 8, on the following page, provides a list of some of Atos' major clients.

INPUT Assessment

According to Atos' management, one of the major reasons for the merger of Axime and Sligos was a shared strategic vi the developments in the IT market and roles that the companies were aiming to play in that marketplace.

The companies had further assessed that there was a close strategic fit between the businesses in terms of:

- Skills, expertise, and capabilities
- Geographic coverage
- Business segments
- Clients

INPUT believes that the merger of the two companies has so far been a strong move.

Axime's key business areas were in processing services and custom software development and the company needed to strengthen its offerings in other stronger growing parts of the IT services market. Sligos' principal strength was in pa systems and the surrounding technologies; it also needed to expand its business foundation.

Through the merger, both companies have alleviated some of their weaknesses and further supported their new comp acquiring a sizable outsourcing business.

Further, the companies' operations outside France matched each other well and their management shared visions of e

in Europe.

Exhibit 8

**Atos Group
Reference Customers**

Industry Sector	Customer
Banking, Finance and Insurance	American Express Bank of France Berliner Bank BNP Citibank Compagnie Bancaire Credit Agricole Deutsche Bank Paribas Societe Generale Societes des Bourses Francaises Zurich Assurances
Transport, Travel & Tourism	Air France Air Inter Disneyland Paris Eurotunnel
Retail & Distribution	Auchan Conforama Damart
Oil & Petroleum	Elf Aquitaine Esso
Telecommunications and Media	Bayard Presse Bonnier Group France Telecom Global One Les Echos Prisma Presse Swiss Telecom Telefonica
Manufacturing	Motorola Peugeot Renault Volkswagen
Aerospace	Aerospatiale
Business Services	Blenheim Group Total
Government and Public Services	French Ministry of Education La Poste European Commission

S

History shows that despite being a strong match on paper, the work of merging two companies can in reality be a long process due to issues such as culture differences. Atos seem to be going smoothly through this process owing to strong

unified management.

However, Atos still lacks strong management consultancy capabilities in its new shape. To truly take on the competition, the major players in the IT services market, the company should look to strengthen this part of its business, either through future acquisitions or alliances with appropriate consultancy companies.

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Autodesk, Inc.



UPDATED:
07/01/1996

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U.S.

Phone:
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Fax:
(415) 507-5100

Company Web Site:
<http://www.autodesk.com>

Summary Info

Chairman/ Pres/CEO:	Carol A. Bartz
Status:	Public
Employees:	1,958 (05/1996)
Revenue:	\$ 546.9 mil
Year End	Jan-1996

Key Points

- Autodesk is the world's leading supplier of design automation software and a leading provider of multimedia software with mor worldwide. The company believes that its principal software products--AutoCAD®, AutoCAD® LT, AutoSketch®, AutoCAD and 3D Studio® MAX--are the world's most widely used general-purpose computer-aided design (CAD) software products.
- AutoCAD Release 13, with its researchtested core technology, began shipping in late November 1994.
- The final AutoCAD Release 13 platform, for Windows 95 and Windows NT, is significantly faster than earlier versions and incl Pan and Zoom.
- In May 1996, Autodesk expanded its offerings to the interior design market with the acquisition of Creative Imaging Technology company.
- In April 1996, Autodesk began shipping 3D Studio MAX, the company's next-generation multimedia product.
- In April 1996, Autodesk introduced two Internet products--WHIP™ Plug-in, a 2D browser, and HyperWire™, an authoring to
- In early 1996, Autodesk shipped Autodesk Mechanical Desktop for mechanical design.
- Autodesk's European sales led the company's growth, with an increase of 33%.

Company Description

Autodesk provides PC- and UNIX-based design software and PC multimedia tools. The company has three million customers in nearly

- The company's 2D and 3D products, geographic information systems, and data management tools are used in many industries f mechanical design, film and video production, video/game development, and Web content development.
- Autodesk's principal product--AutoCAD--has an installed base approaching 1.5 million seats worldwide.
- Its Kinetix division provides PC-based 3D modeling and animation software, providing a range of products for digital media an
- Autodesk products are sold through Autodesk Systems Centers, Dealers, and Distributors worldwide.

Operations and Structure

Autodesk is currently organized into the following groups:

- Product Development focuses on developing specific software products and core tools, such as graphical engines and visualizati
- Marketing has realigned its internal marketing organization around five key market groups that closely match its customer base. with bringing customer-specific products to market.
 - The Architecture, Engineering and Construction/Facilities Management (AEC/FM) Market Group addresses Autodesk's traditi construction, and facilities management markets.
 - The Mechanical Computer-Aided Design (MCAD) Market Group offers products that use 3D, free-form surfacing technology manufacturing applications in various industries, including the automotive and consumer products sectors.
 - The Geographical Information Systems (GIS) Market Group targets municipalities, utility companies, and agricultural or enviro is addressing how automated mapping/facilities management, GIS, and CAD users can share mapping, GIS, and associated info
 - The Data Management (DM) Market Group develops and markets products that allow users to organize, access, share, view, a

- The Kinetix division (formerly the Multimedia Market Group) offers 3D content-creation software focused on film, video, interactive visualization.

- Autodesk Data Publishing, through partnerships with various manufacturing companies, markets CD ROM-based libraries of interactive nongraphic data that can be shared and reused.
- The Advanced Products Group focuses on providing a new generation of tools for a much broader market. The goal of this group is design-automation customer base—architects and engineers—by creating products for individuals in associated trades, such as landscape architecture.
- Autodesk is organized geographically into three sales regions—the Americas, Europe, and Asia/Pacific.

U.S. offices are in Alameda, Encinitas, and San Rafael (CA); Atlanta (GA); Bothell (WA); Chicago (IL); Cincinnati (OH); Dallas (TX); Denver (CO); Milwaukee (WI); Novi (MI); Reston (VA); and Tustin (OR).

Foreign subsidiary/office locations are as follows:

- *Americas*— Brazil, Canada, Chile, Colombia, Mexico, and Venezuela
- *Europe*— Austria, Belgium, Czech Republic, France, Germany, Hungary, Israel, Italy, Netherlands, Poland, Portugal, Russia, Sweden, Switzerland, the U.K., and the United Arab Emirates
- *Asia/Pacific*— Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, South Korea, and Taiwan

Company Strategy

Autodesk's long-term strategy is to create an interoperable family of design automation software products to address the entire product development concept to final production and maintenance.

- The strategy takes advantage of Autodesk's core technologies and open systems approach to its four primary target markets—AEC, manufacturing, mapping, geographical information systems (GIS), and visualization.
- Autodesk has established a second major area of activity—Advanced Products—to provide a development environment to create design automation and support new market opportunities.

Autodesk's strategy also includes maintaining an open architecture on its products to facilitate third-party development of peripheral and software.

Autodesk is constantly enhancing its distribution and marketing efforts to position itself for future growth. This includes expansion and channels, enhanced direct marketing and technology licensing programs, and establishing of new subsidiary offices worldwide.

Financials

Fiscal 1996 revenue reached \$546.9 million, an 18% increase over fiscal 1995 revenue of \$465.3 million. Net income increased 55%, from \$87.8 million in fiscal 1995.

A five-year financial summary is shown on the following page:

Autodesk, Inc. Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year			
	1/96	1/95	1/94	
Net revenue				
	\$546.9	\$465.3	\$418.7	
• Percent change from previous year	18%	11%	14%	
Income before taxes				
	\$138.3	\$89.1	\$96.8	
• Percent change from previous year	55%	(a) (8%)	39%	

Net income	\$87.8	\$56.6	\$62.2	
• Percent change from previous year	55%	(9%)	42%	
Earnings per share (b)	\$1.76	\$1.14	\$1.25	
• Percent change from previous year	54%	(9%)	42%	

(a) Includes a one-time litigation charge of \$25.5 million.

(b) Restated to reflect a two-for-one stock split in October 1994.

Fiscal 1995 results include a one-time charge of approximately \$25.5 million related to a judgment in a trade-secrets lawsuit. Excluding 1995 would have been \$73.1 million (\$1.47 per share) and fiscal 1996 net income actually increased 20% over fiscal 1995.

Autodesk management attributes revenue growth in fiscal 1996 to higher sales of AutoCAD Software, as well as increased sales of multi end CAD product offerings, most notably AutoCAD® LT.

- Revenues from AutoCAD and AutoCAD updates increased from the prior year to approximately \$435 million, up from \$365 m in fiscal 1994. Worldwide demand for AutoCAD remained strong, resulting in the sale of 233,000 new licenses in fiscal 1996, c
- Fiscal 1996 AutoCAD update revenue resulted principally from sales of the most current AutoCAD version, AutoCAD Release quarter of fiscal 1995. AutoCAD upgrade revenue increased 17% over fiscal 1995 to approximately \$49 million.
- Revenue from non-AutoCAD products remained at approximately 20% of total revenue during fiscal 1996.

Net income was 16% of revenue in fiscal 1996, compared to 12% of revenue in fiscal 1995. Marketing and sales expenses were 34% of administrative, and research and development expenses were 14% of revenue for both years.

- General and administrative expenses were \$76.1 million (14% of revenue) in fiscal 1996, \$65.7 million (14% of revenue) in fiscal 1994.
- Research and development expenditures, excluding capitalized software, were \$78.7 million (15% of revenue) in fiscal 1996, \$ fiscal 1995, and \$56.2 million (14% of revenue) in fiscal 1994.
- The majority of Autodesk's basic research and product development has been performed in the U.S., while translation and locali generally performed by development teams or contractors in the local market.
- Autodesk has centralized its European product-related functions, including software development, localization, quality assuranc production in a new software center in Neuchatel (Switzerland).
- Direct commissions paid to dealers were \$12.7 million, \$10.7 million, and \$13.1 million for fiscal 1996, 1995, and 1994, respec

Interim Results

Net revenue for the three months ending April 30, 1996 reached \$136.3 million, compared to \$138.7 million for the same period in 199 \$19.1 million, compared to \$26.0 million for the same period a year ago.

Market Financials

Autodesk's family of products are targeted to a range of users, including mechanical, structural and electrical engineers; architects; facili interior designers; surveyors; electronic system designers; multimedia, entertainment, video and game designers; and educators.

Substantially all of Autodesk's European, Asia/Pacific, and U.S. export sales are made to dealers and distributors.

Revenue Analysis by Product Line

One hundred percent of Autodesk's fiscal 1996 revenue was derived from the sale of its applications software products.

- Approximately 95% (\$507 million) of revenue came from design automation products and 5% (\$27 million) from multimedia p
- Sales of AutoCAD and AutoCAD updates accounted for approximately 80%, 80%, and 85% of Autodesk's revenue in fiscal 19

Geographic Markets

Approximately 31% of Autodesk's fiscal 1996 revenue was derived from the U.S. and the remaining 69% from foreign sources, including

A three-year financial summary by geographic market appears on the following page:

Autodesk, Inc.
Three-Year Financial Summary
(\$ Millions)

Geographic Market	Fiscal Year			
			1/95	
	\$	Percent of Total	\$	Percent of Total
Revenue				
• Americas	\$195.3	36%	\$182.1	39%
• Exports (a)	68.0	12%	67.2	15%
• Royalties (b)	67.7	12%	48.5	10%
• Europe (c)	211.5	39%	159.1	34%
• Asia Pacific (c)	72.1	13%	56.9	12%
(Eliminations)	(67.7)	(12%)	(48.5)	(10%)
Total	\$546.9	100%	\$465.3	100%
Income from operations				
• Americas	\$63.8	49%	\$71.5	67%
• Europe (c)	53.7	42%	25.1	23%
• Pacific Basin (c)	11.5	9%	10.8	10%
Total	\$129.0	100%	\$107.4	100%

(a) Includes export revenue to Canada of \$14.6 million, \$15.7 million, and \$16.2 million and export revenue to Asia/Pacific of \$42.3 million for fiscal 1996, 1995, and 1994, respectively.

(b) Includes royalty revenue to the U.S. derived from the foreign subsidiaries.

(c) Represents the operations of Autodesk's foreign subsidiaries.

Fiscal 1996 revenues increased in all of Autodesk's major geographic markets over the prior fiscal year.

- Revenues increased by 33%, 23%, and 3% in Europe, Asia/Pacific, and the Americas, respectively, compared to fiscal 1995 growth of 4%.
- The weaker value of the dollar, relative to international currencies, favorably affected fiscal 1996 revenues by approximately \$1

Acquisitions

In May 1996, Autodesk acquired Creative Imaging Technologies, Inc. of La Habra (CA). The acquisition will be accounted for as a purchase.

- Creative Imaging is a software and digital imaging company that serves the interior decorating market.
- Creative Imaging developed and markets Designer's Vision™ software for product sampling and project visualization used by interior decorating retailers to search for and view samples of fabrics, wallcoverings, flooring, paints, and other decorative products. The more than 15 top suppliers of interior finish products, including F. Schumacher & Company, Hunter Douglas Window Fashions

- Fabrics, and Robert Allen Fabrics.
- Creative Imaging will be integrated with Autodesk's Advanced Products Group.

In August 1995, Autodesk acquired certain assets of Automated Methods (Pty) Ltd. of South Africa, a provider of GIS software.

Employees

As of January 31, 1996 Autodesk had 1,894 full-time employees (1,251 in North America, 463 in Europe, and 180 in the Asia/Pacific re

Marketing, sales, and product	
support	911
Software development	472
Quality assurance	94
Production	56
General and administrative	<u>361</u>
	1,894

As of May 1996, Autodesk had 1,958 employees.

Key Products and Services

Autodesk offers design automation and multimedia products as follows:

CAD/Design Automation Products

Autodesk's design automation software products are used in a variety of applications, including mechanical design and engineering, arc management, and civil engineering.

AutoCAD, the worldwide desktop CAD standard, was introduced in November 1982 and continues to be enhanced through regular rele

- AutoCAD, available in nearly 130 countries and 19 languages, automates the design and drafting process by enabling users to i variety of drawings. This drawing information may be exchanged with other applications software, databases, and mainframe C
- The most current version of AutoCAD, Release 13, was introduced in the U.S. in November 1994. Release 13 incorporates an o and fully customizable user interface, and a powerful, integrated solid modeler.
- AutoCAD is used in fields ranging from architecture and mechanical design to plant design and mapping. Professionals use Aut drafting, mapping, rendering, and management tasks.
- Advanced AutoCAD functionality includes a 2D and 3D drafting feature set, integrated 3D solid modeling, rendering, extensive ellipses, associative hatching, dimensioning, text editing, and spell checking.
- AutoCAD operates in many major desktop and workstation operating environments, including MS-DOS, Windows 95, Windo Windows 3.1, and certain UNIX operating systems (Sun Solaris, HP-UX, Silicon Graphics IRIX, and IBM AIX).
- Because AutoCAD .DWG files are portable across many platforms and operating systems, it is a viable solution for customers need to exchange drawing files in such an environment.
- AutoCAD currently has an installed base of nearly 1.5 million units.

AutoCAD LT for Windows, introduced in late 1994, is a low-cost CAD package offering a range of 2D and basic 3D drafting capabiliti base of more than 250,000 seats, is suited for CAD managers, designers, and engineers requiring a powerful, standalone CAD tool, but features of AutoCAD. The product is available for Windows 95 and Windows 3.1.

AutoSketch®, first released in late 1986, is a low-cost, entry-level 2D drawing package used for creating technical diagrams, architectur mechanical plans, information graphics, and presentations. It offers easy tool customization; 13 library packs with more than 2,000 pred precision geometry; and the ability to write .DWG files for AutoCAD and AutoCAD LT users. It is available for Windows and DOS.

AutoCAD OEM for Windows is a selectively licensed CAD engine providing an application development environment for creating targ feature sets. It is for developers and enterprise-wide solution providers requiring an embeddable CAD system in which they can scale an

Mechanical CAD Products

AutoCAD Mechanical Desktop, which began shipping in the first quarter of fiscal 1997, is an integrated software application that provides design functions for desktop PCs. Integrated modules are provided for parametric feature-based solid modeling, surface modeling, and associative drafting, as well as AutoCAD Release 13 and the Autodesk IGES Translator, which enables users to exchange all versions of

AutoCAD Designer works within AutoCAD to provide 3D feature-based solid modeling and assembly modeling. It is used by drafters, the conceptualization, design, or drafting of mechanical parts in a range of manufacturing industries, including automotive, electrical equipment, aerospace. AutoCAD Designer resulted from the acquisition of Woodbourne in late 1993.

Advanced Modeling Extension (AME)® 2.1 works with AutoCAD's design and drafting features to provide users with a set of solid modeling, manipulating, and analyzing models.

AutoSurf is integrated with AutoCAD, AutoCAD Designer, and AutoVision to provide easy-to-use, 3D surface-modeling tools for use. AutoSurf helps users design complex mechanical component parts such as consumer products, automotive products, molds, turbines, and

Autodesk Mechanical Library, available on CD ROM via a regularly updated subscription service, currently consists of two titles:

- *PartSpec* is a digital warehouse representing more than 56 leading U.S. vendors with more than 400,000 predrawn, purchasable associated attribute information) in AutoCAD .DWG file format for insertion into AutoCAD drawings.
- *MaterialSpec* contains a database of more than 35,000 materials from more than 300 manufacturers worldwide.

AutoCAD Map, expected to ship during 1996, will be the first in a series of mapping and GIS software planned by Autodesk. It will incorporate AutoCAD, the data management functionality of AutoCAD Data Extension software, automated mapping and GIS tools, plus an application for designing custom applications.

Aemulus™ and Aemulus™ software products provide bidirectional file compatibility between AutoCAD and CADAM, a mainframe

Autodesk WorkCenter is a Windows-based system that can be customized for managing technical documents and automating workflow management tools allow users to organize documents according to specific needs; check documents in and out of a secured, multiuser environment manage revisions over time.

Autodesk View is a low-cost CAD preview, view, and redline tool for design teams. With Autodesk View, project managers can distribute documents to users in a workgroup who need to view and comment on them, and be assured that the original documents will not be altered.

AutoCAD Data Extension (ADE) is an add-on program that incorporates AutoCAD drawings with database records and other document data. The graphic information created with ADE allows users to locate data within AutoCAD drawings based on entity location; properties such as associated data.

Through Autodesk Data Publishing, the company publishes preformatted product and reference libraries for specific markets, including (previously discussed) and PlantSpec (scheduled to ship in 1996), which provides purchased parts information to users in the process of

AutoCAD IGES Translator 5.1 provides AutoCAD drawing-data translations for the easy exchange, use and reuse of drawings created on

Kinetix Multimedia Products

3D Studio® MAX, which began shipping in the first quarter of fiscal 1997, is a 3D modeling and animation software package specifically for Windows NT.

3D Studio is a graphics package for creating professional-quality 3D modeling and animation. This PC-based product runs in DOS to provide rendering tools that help users create richly textured, workstation-quality images and animations. The product is well suited for animators to create corporate presentations, broadcast animations, industrial design visualizations, crime reenactments, and architectural walk-through training.

AutoVision provides photorealistic still renderings within AutoCAD software for DOS and Windows.

Internet products introduced by Autodesk in April 1996 include the following:

- WHIP! Plug-in is a World Wide Web browser plug-in that lets users dynamically view 2D vector design data stored in the WHIP!
- HyperWire is an authoring tool for the World Wide Web that lets users create 3D and 2D Web titles based on using simple visual programming commands. These titles are based on the Java language.

Autodesk Animator Studio, the Windows-based successor to Animator ProR, offers a combination of 24-bit 2D paint and animation, dig creating and editing components of many multimedia applications.

Cyberspace Developer Kit is a complete toolset for 3D modeling, visualization and simulation. It includes a set of object-oriented C++ c time, PC-based virtual reality applications.

HOOPS is a portable, commercial, 3D graphics technology developed by Ithaca Software. It allows software developers to create interac applications and provides a common high-performance interface to major PC and workstation operating systems, window managers, an

Customer and Dealer Support

Autodesk requires each authorized dealer and distributor to provide a professional level of technical support to customers. Dealers and d franchisees of computer stores, are supported by Autodesk through technical product training, sales training classes, and direct telephon

- The Autodesk Premier Support Center program requires participating dealers to provide a high level of technical support with s vertical industry.
- The Autodesk Systems Center Solutions Training program requires dealers to provide superior industry-specific application trai
- Both programs require that the dealers meet certain qualifications in order to receive an industry medallion and Solutions Traini
- As of January 31, 1996, Autodesk had more than 900 independent authorized Autodesk Training Centers worldwide. These acc depth education and training in computer-aided design skills on AutoCAD and other Autodesk products, as well as on related, i

Although Autodesk does not provide direct user support, the company offers on-line support to customers through its Home Page on the onto the Autodesk Forum on CompuServe. The four Autodesk Forums are the AutoCAD Forum, the Autodesk Beta Forum, the Autode Autodesk Retail Products Forum.

Clients

Autodesk has more than three million users of its products worldwide.

A sampling of major clients includes AFC (Sweden), Anshen + Allen, Arnold Air Force Base, Avondale Industries, Consolidated Ediso Airline Co. Ltd., Kansai International Airport Co., Marvin Windows, Parker Hannifin, SBB Swiss Federal Railroad Company, and Sony

Marketing and Sales

Autodesk's customer-related operations are divided into three geographic regions the Americas, Europe, and Asia/Pacific. As previously internal marketing organization around five key market groups.

Autodesk's products are marketed through a network of domestic and foreign offices, creating a worldwide support and distribution syst nearly 130 countries through authorized dealers, distributors, and direct sales.

- The company now has more than 4,000 Authorized Autodesk Dealers and Distributors.
- Dealers and distributors, including both owners and computer store franchisees, are supported by Autodesk and its subsidiaries r telephone support, periodic publications, through the Autodesk Forum, and through Autodesk's Home Page on the Internet.
- Domestically, Autodesk distributes its products primarily through its authorized dealer network. Other domestic sales are made governmental agencies, educational institutions, and users for certain low-end CAD products.
- Autodesk major accounts programs work with dealers to support companies that are regional, national, and international in scop purchase agreements, on-site training, and support to large corporate accounts.
- The Autodesk Federal Systems Group provides specialized services to federal government agencies through a sales office in Wa established programs for state and local governments.
- In August 1993, Autodesk and Cordant, Inc. were awarded a 12-year facilities management contract to supply the Navy Faciliti design, construction, and management systems through the end of the century.

- Called the NAVFAC CAD 2 program, it is the largest architectural and engineering CAD effort ever undertaken.

- Autodesk and Cordant will supply computer-aided design software, hardware, and support services. Intergraph also received a two contracts may not exceed \$550 million.

- Internationally, substantially all sales are made to dealers and distributors, which are supported by Autodesk's foreign subsidiari organizations.

Autodesk works with dealer and distributor sales organizations, computer manufacturers, other software developers, and graphics peripheral cooperative advertising, promotions, and trade show presentations.

Autodesk holds annual "Expos" throughout the world. These dedicated trade shows, incorporated within major industry trade shows, as well as a number of third-party products. Autodesk also uses mass marketing, including direct mailings, public relations, and advertising.

Alliances

To support the growth of third-party developers worldwide whose applications extend and enhance the functionality of Autodesk's product Virtual Corporation Partner Program. This program provides sales, marketing, technical, and financial support to Autodesk Strategic Development Partners.

- To date, more than 2,500 Autodesk Registered Developers worldwide have developed more than 4,500 commercially available products.
- Although Autodesk derives no direct revenue from these application developers, the company believes that the availability and enhances sales opportunities for the company's core products.

During fiscal 1996, Autodesk introduced the Mechanical Application Initiative (MAI) partner program, aimed at the development and integrated with Autodesk's MCAD products.

The Multimedia Plug-In Partnership extends Autodesk's franchise into the multimedia market. 3D Studio is now sold by more than 700 and 200 Independent Application Developers provide 3D Studio "plug-in" applications.

Competitors

AutoCAD competitors include Personal Designer and CADDS by Computervision, CADKEY by Cadkey, Inc., MICRO CADAM by C MicroStation by Bentley Systems.

Domestically, Autodesk's mechanical design products compete with Parametric Technology Corporation's Pro/ENGINEER and Pro/JR, Dynamics Research Corporation, ANVIL-5000 by MCS, and the CATIA and CADAM products offered by Paris-based Dassault Systemes.

Competitors in the data management market include AM Workflow from Cyco and AutoEDMS from ACS Telecom.

Autodesk's primary multimedia products, 3D Studio, AutoVision, and Animator Studio, compete with products available on PCs and workstations.

- Products competing with 3D Studio include Lightwave by Newtek and Truespace by Caligari.
- Animator Studio competes with various products, including Painter by Fractal Design and After Effects from Adobe.
- AutoVision software competes with two third-party add-on products: AccuRender from Robert McNeel and RenderStar by Ren

The Cyberspace Developer Kit competes with Sense8's WorldToolKit and SuperScape VRT3 from Dimension Ltd.

Autodesk also faces competition in its foreign operations from a number of products offered by foreign-based companies.

INPUT Assessment

Autodesk's strengths include its strong CAD software offerings, including AutoCAD, the worldwide de facto CAD standard. Building on AutoCAD, Autodesk has developed an integrated, diverse family of products to serve the needs of customers throughout the design automation and manufacturing markets.

During 1993, Autodesk surpassed IBM to become the world's number one design automation software supplier. The company claims to be the leader in software market.

Autodesk also has a strong network of partners called the "Autodesk Virtual Corporation." This network is comprised of more than 4,300 authorized Autodesk developers, 900 training centers, and more than 350 user groups. The Autodesk Virtual Corporation allows the company to reach each of its partners and extend its presence across markets and geographies.

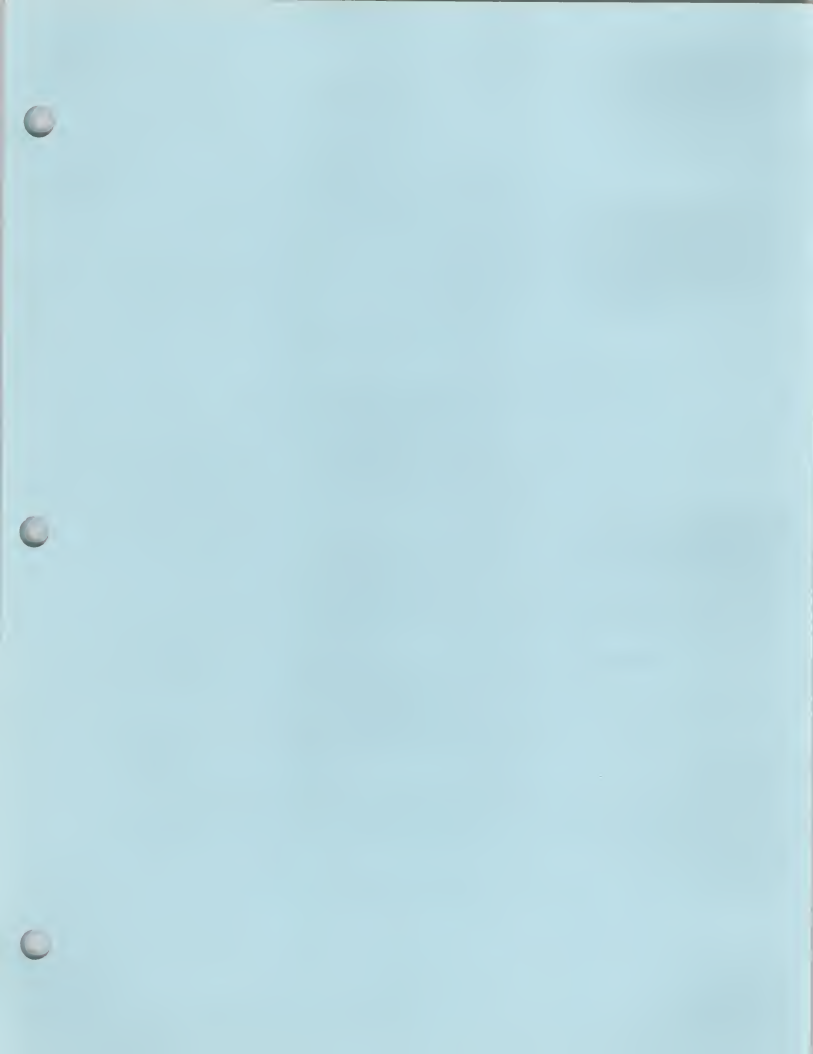
Autodesk is working with Netscape to extend the Internet into a virtual engineering environment. Designers and engineers will use AutoCAD's Navigator Gold and Enterprise server software to collaborate on, publish, and manage design data over the Internet.

Key challenges for Autodesk include continuing to make the company grow faster than the industry through market and geographic stra

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**Automatic Data Processing, Inc.****UPDATED:**
06/01/1996**Headquarters**

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U.S.

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(201) 994-5387

Company Web Site:
<http://www.adp.com>

Summary Info

Chairman/CEO:	Josh S. Weston
President:	Arthur F. Weinbach
Status:	Public
Employees:	29,000 (06/1997)
Revenue:	\$ 4,112.2 mil
Year End	Jun-1997

Key Points

- Automatic Data Processing, Inc. (ADP) provides computerized transaction processing, data communications, software, and information services, and is the leader in providing payroll processing services. ADP processes paychecks for more than 18 million U.S. workers.
- In May, 1996, ADP announced the first CD ROM application for payroll processing.
- In May, 1996, ADP announced CSS HRizon™ Alliance, the company's new IT outsourcing solution for the Human Resource Management System.
- In March 1996, Josh S. Weston, chairman and CEO of ADP, announced that effective August 1, 1996, he would relinquish his position as CEO but retain his title as chairman of the board. Arthur F. Weinbach, currently president and chief operating officer, has been elected by the board of directors to the position of president and CEO effective August 1, 1996.
- In January 1996, ADP acquired the Troy (MI)-based Sandy Corporation, a leading performance-improvement company.
- In January 1996, ADP and SAP® America, Inc. announced an alliance to provide clients of SAP's R/3 enterprise applications software with a standard interface to ADP's payroll outsourcing services.
- In October 1995, ADP acquired control of GSI, a leading European computer services company based in France. This acquisition is expected to position ADP to become the leader of payroll and human resource information services in Europe.
- During 1995, ADP acquired The Applications Group, a leading San Francisco-based client/server and HR software implementor.
- In early 1996, the company acquired Wilco International, a provider of multicurrency international clearance and settlement systems, providing international expansion opportunities for ADP.
- Brokerage Services now provides market data services to 96,000 investment professionals in more than 1,200 firms.
- Dealer Services is currently serving 13,000 clients with more than 100,000 installed applications and more than 160,000 computer devices.

Company Description

ADP was formed in 1949 as Automatic Payrolls, Inc. Its name was changed to Automatic Data Processing in 1960. From 1949 to 1961, its payroll services were performed on unit record equipment. In 1961, ADP computerized its operations and went public.

Payroll and related services still provide the major share of ADP's revenue; however, the company also derives significant revenues from brokerage services, services to automotive dealers, and claims services for property and casualty and the collision repair industry.

The company provides computerized transaction processing, data communications, and information services to more than 350,000 clients worldwide.

ADP services include payroll, payroll tax, and human resource information management; brokerage industry market data, securities transaction processing, and investor communication services; industry-specific computing and consulting services for auto and truck dealers; and computerized auto repair estimating, auto parts availability services, and fee and utilization audits of bodily injury claims.

On January 1, 1996, the company's common stock was split two for one.

Structure and Operations

ADP is currently organized into four major groups as follows:

- Employer Services provides payroll processing, payroll tax filing, job costing, labor distribution, unemployment compensation management, and personnel information services, as well as payroll processing services. This unit also administers a shrinking batch Accounting Services business providing generic accounts receivable, accounts payable, time analysis, and general ledger/financial reporting transaction processing services.
- The Brokerage Services Group includes the following businesses:
 - Information and Processing Services (formerly two separate divisions made up of Front-office and Back-office) provides real-time quotation/financial information services and securities operations services.
 - Investor Communication Services (formerly Proxy Services) provides shareholder mailing services. It processed over 200 million shareholder mailings and electronically processed ballots representing 69 billion shares in 1995.
- ADP Dealer Services provides processing and network services and turnkey systems to auto, truck, farm, and heavy equipment dealerships in the U.S., Canada, and Europe.
- ADP Claims Solutions Group provides claims estimating processing services and electronic information services for auto, physical damage, property damage, and bodily injury claims analysis.

Company Strategy

ADP's growth strategies are primarily focused on expanding the leadership positions of its core businesses by providing new products and superior service to its clients, as well as through the use of strategic acquisitions. Key growth strategies include:

- Delivering superior service to enhance value and improve client retention
- Providing ancillary products and services that create incremental value for existing clients
- Increasing market penetration by broadening product lines and expanding distribution channels
- Expanding existing business internationally
- Entering new markets that complement and leverage its core competencies and businesses

In the Employer Services area, ADP intends to expand its client-site products and services.

In the Brokerage Services area, ADP intends to become a major multinational provider of market data services.

In the Dealer Services area, ADP intends to become the leading global supplier of turnkey systems to auto dealerships.

Financials

ADP reported revenue of nearly \$2.9 billion for fiscal 1995, a 21% increase over fiscal 1994 revenue of \$2.4 billion. Net income reached \$394.8 million, an increase of 20% over net income of \$329.3 million the previous year.

A five-year financial summary appears on the following page.

ADP management attributed revenue growth in fiscal 1995 to the expansion of its client base, new product offerings, and acquisitions, with relatively minor contributions from price increases.

- Employer Services' revenue grew 13% in fiscal 1995, up from the 9% growth rate in fiscal 1994. Operating margins were approximately 26% in fiscal 1995, 27% in fiscal 1994, and 26% in fiscal 1993.
 - Client retention increased in fiscal 1995, and new client sales rose 15%.
 - Three relatively small acquisitions also contributed to Employer Services' growth.
 - Excluding the effect of the acquisitions, revenue growth would have been approximately 10%.
- Brokerage Services' revenue grew 8% in fiscal 1995, 20% in fiscal 1994, and 23% in 1993. The group's operating margin was approximately 15% in fiscal 1995, down from 16% in 1994.
 - Brokerage Services began to benefit in fiscal 1992 from improved Wall Street trading volumes, which had previously been adversely affected in the years subsequent to the October 1987 market crash. The improved conditions continued in fiscal 1994 and 1995.
 - Brokerage Services' pretax margin was approximately 15% in fiscal 1995, after absorbing losses from the recently acquired international quote services business referred to above.

**Automatic Data Processing, Inc.
Five-Year Financial Summary
(\$ Millions, except per-share data)**

Item	Fiscal Year				
	6/95	6/94	6/93	6/92	6/91
Revenue	\$2,893	\$2,468.0	\$2,223.4	\$1,940.6	\$1,771.8
• Percent change from previous year	17%	11%	15%	10%	3%
Income before taxes	\$534.3	\$446.3	\$386.6	\$341.6	\$299.6
• Percent change from previous year	20%	15%	13%	14%	5%
Net income	\$394.8	\$329.3	\$294.2	\$256.2	\$227.7
• Percent change from previous year	20%	12%	15%	13%	8%
Earnings per share	\$2.77	\$2.34	\$2.08	\$1.84	\$1.63
• Percent change from previous year	18%	13%	13%	13%	13%

- Dealer Services' revenue grew 32% in fiscal 1995 and 22% in fiscal 1994 as a result of improved industry conditions and several small acquisitions.
 - Operating margins were approximately 20% in fiscal 1995 and fiscal 1994, up from approximately 15% in fiscal 1993 and 1992.
 - Excluding the effects of the acquisitions, revenue growth would have been approximately 18%.

A three-year summary of source of revenue by major operating group is shown below.

Systems development and programming expenditures were approximately \$193.2 million (7% of revenue) in fiscal 1995, \$160.8 million (7% of revenue) in fiscal 1994, and \$132.4 million (6% of revenue) in fiscal 1993. Investments have increased, especially in Employer Services, to accelerate automation, migration to new computing technologies, and development of new products.

Source of Revenue by Product/Service

INPUT estimates that ADP's fiscal 1995 revenue was derived approximately as follows:

Processing services	72%
Network services	12%
Turnkey systems	16%
	<hr/>
	100%

**Automatic Data Processing, Inc.
Three-Year Source of Revenue Summary
(\$ Millions)**

	Fiscal Year
--	-------------

Item	6/95		6/94		6/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Employer Services	\$1,615	56%	\$1,424	58%	\$1,311	59%
Brokerage Services	657	23%	606	25%	505	23%
Dealer Services	440	15%	334	13%	274	12%
Claims Services and other (a)	182	6%	105	4%	133	6%
Total	\$2,894	100%	\$2,469	100%	\$2,223	100%

(a) Includes services for auto claims, wholesalers, and European payroll users.

Interim Results

Revenue for the nine-month period ended March 31, 1996, was approximately \$2.6 billion, up 24% from \$2.1 billion during the same period the previous year. Net income reached \$334.7 million for the period, an increase of 16% year to year.

Market Financials

ADP's revenue is primarily derived from various businesses, banks, and CPAs for payroll and related services; automotive dealerships and manufacturers; and brokerage firms and insurance companies.

- Employer Services has more than 350,000 clients from a large variety of industries and markets.
- Brokerage Services primarily serves the retail brokerage market, but also services banks, commodity dealers, the institutional brokerage market, and individual nonbrokerage corporations.
- Dealer Services primarily serves auto dealerships, but also serves agricultural equipment dealers, auto repair shops, used car lots, state departments of motor vehicles, and manufacturers of autos, trucks, and agricultural equipment.
- The Claims Solutions Group has many insurance company clients, but also provides services to auto manufacturers, body repair shops, salvage yards, distributors of new and used auto parts, and other noninsurance clients.

Geographic Markets

Approximately 91% of ADP's revenue is derived from U.S. operations, with the remainder from the U.K., Western Europe, and Canada.

In fiscal 1995, the company's international revenue was over \$225 million, predominantly from businesses in Canada and Europe.

Acquisitions

In January 1996, ADP acquired Sandy Corporation of Troy, (MI).

- Each outstanding share of Sandy stock was exchanged for approximately 0.33 shares of ADP common stock, in a transaction valued at nearly \$30 million.
- Sandy, a leading performance-improvement company, provides consulting, training, and communication services to the automotive industry, both at the dealer and manufacturer levels.
- Sandy Corporation had revenues last year of over \$50 million.
- Sandy will now become a part of ADP's Dealer Services Group.

During 1995, ADP purchased several businesses for an aggregated total of approximately \$107 million in cash and \$16 million in common stock. The company also acquired several businesses that were accounted for as poolings of interest, in exchange for an aggregated total of approximately 1.2 million shares of common stock.

- In October 1995, ADP acquired control of GSI, a leading computer services company based in Paris (France). ADP now controls over 80% of the shares of GSI and expects to complete the purchase of close to 100% of GSI.
 - ADP has entered into an agreement to acquire for cash all of the outstanding shares of GSI.
 - The transaction is valued at FF 23 billion (approximately U.S. \$460 million) and is subject to GSI shareholder and various governmental approvals.
 - GSI had revenues last year in excess of FF 2 billion (U.S. \$400 million).

- o GSI has more than 3,000 employees, with operations in France, Germany, Italy, Spain, Switzerland, and the U.K.
 - o The acquisition of GSI is expected to dilute ADP's fiscal 1996 earnings per share by 1% to 2%.
- In March 1995, ADP acquired Turbodata, a leading European auto dealer services company with 3,000 auto dealer clients in Benelux, France, and Germany.
- ADP Nederland, ADP's Dutch subsidiary, acquired Infotech, the leading provider of employer services to temporary employment agencies.
- ADP Brokerage Services acquired Wilco International, provider of multicurrency clearance and settlement services for international securities, and the GLOSS client/server system. This acquisition provides substantial international expansion opportunities for the company.
- ADP acquired Shark Information Services, a provider of real-time market information and sophisticated analytics to 5,000 institutional users.
- ADP's Claims Services Group acquired the AutoInfo salvage yard network.
- In January 1995, ADP acquired WTR, a leading benefits consulting and actuarial firm.

Employees

As of June 15, 1996, ADP had approximately 22,000 employees.

Key Products and Services

Employer Services

ADP Employer Services offers a range of payroll and payroll-related services, including payroll processing, tax filing, human resource recordkeeping and reporting, 401(k) recordkeeping and reporting, timekeeping systems, and unemployment compensation management. On payday, ADP pays more than 18 million U.S. workers for more than 300,000 clients of all sizes in virtually every business sector.

- Payroll and tax filing services comprise over 80% of the revenues of the Employer Services Group.
- In addition to marketing its services directly, ADP has marketing relationships with many banks and CPAs whereby ADP offers its services to their clients and prospective clients.
- Employer Services are offered from 39 ADP regional processing centers located throughout the U.S. ADP also has data processing centers in Western Europe (4) and Canada (1).

ADP's payroll and payroll tax collection and filing services are Employer Services' largest single form of service.

- Such services consist primarily of the preparation and furnishing of employee paychecks and direct deposit advices, along with the necessary supporting journals, summaries, and other reports.
- As part of its regular services, ADP supplies each client with the quarterly and annual Social Security, Medicare, and federal, state, and local income tax withholding reports required to be filed by employers, W-2 withholding statements for employees, a complete record of payments for each pay period, and a quarterly historical earnings record for each employee.
- Payroll services also include the preparation of statistical and audit reports for use in client management, such as payroll and job cost distribution reports, welfare and pension fund reports, and a payroll audit report.
- AutoPay is ADP's most flexible and comprehensive payroll product, with over 200,000 clients.
- AutoPay I Payroll service targets small clients with 5 to 19 employees.
- ADP's AutoPay II payroll service focuses on companies with 25 to 500 employees. ADP has more than 200,000 clients in this segment.
- AutoPay Plus, introduced in 1983, includes an integrated payroll and tax filing service for companies with fewer than 25 employees.
- The National Accounts Division sells payroll services to companies with over 1,000 employees.
- More than 95,000 ADP payroll clients now use microcomputers for payroll input to ADP.
 - o The PC/Payroll service is targeted to accounts with 50 or more employees.
 - o EasyPay, introduced in late 1989, is a simplified PC service for smaller payroll clients.
 - o Direct Payroll Access (DPA), introduced in 1993, enables PC-based clients who prefer more on-site control to use ADP's payroll, direct deposit, and tax filing services, while having the capability to directly access their payroll data on a PC and to print their paychecks and standard reports on site.
- ADP's automated payroll tax collection and filing service processes federal, state, and local payroll withholding taxes on behalf of ADP clients, and remits such taxes to the appropriate taxing authorities when due. About 75% of ADP's payroll clients also use ADP's tax filing service.
- Approximately 44% of Employer Services' payroll and payroll tax filing services revenue for the past three fiscal years came from ADP's headline accounts (companies with fewer than 100 employees), 39% from major accounts (companies with 100 to 1,000 employees), and 17% from national accounts (companies with over 1,000 employees).

ADP now also offers client-site software systems for clients who prefer enhanced control and lower cost solutions by taking on payroll preparation in-house.

- CSS HRizon™, previously called the Client Server Series (CSS) HRMS, is a client/server Human Resource Management System offered by the National Accounts Division.
 - CSS HRizon is made up of four integrated functional modules--Human Resources, Benefits Administration, Flexible Spending Accounts and Payroll--forming a complete solution for medium-sized and large businesses committed to client/server technology. The software runs on Intel-based PCs and a variety of databases, and uses Microsoft Windows.
 - CSS HRizon Alliance, announced in May 1996, will provide a client/server outsourcing solution--providing, implementing, and supporting a client's HRMS, including the hardware, data base, and application software.
 - CSS HRizon Alliance, is a family of software products and HRMS solutions based on the CSS HRizon software.
 - CSS HRizon Alliance is expected to be available in June 1996
- Peachtree software products include a variety of microcomputer-based accounting packages sold to very small businesses through computer stores.
- SoftPay Services include PC-based payroll software for in-house use, targeted to businesses with under 100 employees, plus access to the ADP processing center in Atlanta for tax services, direct deposits, and implementation and client support services. There are currently more than 1,000 SoftPay Services installations.
- Full Service Direct Deposit (FSDD) was recently introduced in association with major bank partners. This allows employers to make electronic direct deposits to employee bank accounts.

ADP's human resource recordkeeping and reporting systems, operating in conjunction with a client's payroll data base, provide human resource services, including salary and benefit administration, applicant tracking, employee history, and other information reporting. ADP currently offers the following human resource products:

- Interactive Payroll and Personnel (IPP) is an on-line processing service targeted primarily to companies with more than 500 employees and multiple locations.
 - Personnel and payroll data are entered on a terminal supplied by ADP or on a microcomputer. The terminal is linked to a regional ADP computing center via Autonet.
 - The system provides a range of payroll-related services, including filing of federal, state, and local taxes, unemployment cost control, and various management reports, printed on site.
- HR Partner, introduced in 1990, is an IBM and compatible PC-based integrated system that assists large, single-site clients.
- PC Personnel, introduced in 1990, is a PC-based system for integrated personnel and payroll data designed for major accounts and (medium-sized) payroll clients.
- ADP offers a new-time-and attendance product that automates collection of employee hours and integrates with ADP payroll products.
- For 401(k) plans, ADP offers full-service recordkeeping, communication, enrollment, and reporting systems, operating in conjunction with client databases.
 - During fiscal 1995, these services were enhanced by the acquisition of WTR, a leading consulting and actuarial firm.
 - ADP now offers comprehensive 401(k) administrative services relating to defined benefit plans, flexible spending, health care, and other group benefits.
- Total Time provides a comprehensive time-keeping system, fully integrated into ADP's payroll systems.
 - Total Time integrates clients' timeclocks directly into ADP's payroll computers in 39 centers.
 - More than 1,600 payroll clients now use Total Time.

Unemployment compensation management services are also offered in conjunction with ADP's payroll services and are designed to aid in the management and reduction of unemployment insurance costs. The service handles claims processing, monitors state changes against the employer's accounts, aids clients in appeals, reviews prior employment history, evaluates current tax rates, and analyzes the client's various financial options.

ADP continues to provide generic accounts receivable, accounts payable, time analysis, general ledger, and financial reporting services to 10,000 to 20,000 businesses. This client base now has the option to use client-site PCs connected to ADP's regional centers' mainframe systems.

Brokerage Services

ADP's back-office stock brokerage and related financial transaction processing services include trade processing, cage management, stock loan accounting, on-line inquiry and data collection, portfolio reporting, order matching, and on-line trading. These services are offered in the U.S. and Canada.

- ADP also provides processing services to brokers and traders in commodity contracts, commodity futures, and options. These services are offered in the U.S. and Canada through an operations center in Jersey City (NJ).

- ADP processes approximately 20% of New York Stock Exchange transactions and is the leading third-party provider of recordkeeping services in the U.S. and Canada.
- The GLOSS client/server system, acquired with Wilco, offers global multicurrency clearance and settlement services for international securities.

Front-office database, news, analytic, and quotation electronic information services--provided by ADP to the investment and brokerage community--include supplying quotations, financial news, and other information to terminals located on brokers' desks.

- ADP supports approximately 96,000 market data terminals in over 1,200 firms. Most of these terminals are FS Partner intelligent workstations, supported by IBM PS/2 PC servers, and operating on more than 1,500 LANs.
- FS Partner--ADP's stock quote and branch automation service--is an IBM PS/2-based service that links microcomputers with various stock exchanges, ADP computers, and client computers to provide market data and proprietary brokerage and management information applications for the front office.
- FS Partner clients include Merrill Lynch, Shearson Lehman, First Boston, Smith Barney, Kidder Peabody, and Raymond James Financial Inc.
- ADP has introduced an advanced-function FS Partner for institutional users.
- Front-office, market data services, and quote operations are supported from a data center in Mt. Laurel (NJ).

ADP also provides these services through interactive workstations for all active commodities, currencies, and interest rate futures trading.

ADP's Investor Communication Services (ICS) is the largest independent provider of shareholder mailing services in the U.S. and Canada.

- ICS, with its distribution center in Edgewood (NY), handles shareholder mailings to investors whose securities are left in street name with their brokerage firm or bank.
- During fiscal 1995, ADP handled over 200 million mailings for more than 11,000 publicly held companies. Shareholder ballots representing approximately 69 billion shares were electronically processed.
- ShareLink, introduced in 1993, permits clients to send laser-printed dividend checks with personalized communications to their shareholders.
- StreetLink, introduced in 1994, is a cost-effective alternative to traditional glossy, expensive quarterly reports that are printed and mailed within three days.

ADP also offers its institutional and international clients real-time news processing systems, real-time fixed income, foreign exchange, and money market information, and sophisticated analytics.

The Power Partner service allows clients to build and integrate market information, securities processing systems, broker productivity tools, client applications, and third-party software into their workstations.

ADP Dealer Services

ADP Dealer Services provides turnkey systems to more than 13,000 auto, truck, and farm equipment dealerships and manufacturers in the U.S., Canada, Mexico, Germany, France, the Netherlands, the U.K., and Taiwan.

During fiscal 1995, Dealer Services continued to increase market share in North America through the acquisition of three companies that provide systems to Chrysler, Ford, General Motors, Audi, and Volkswagen dealers.

Auto dealers use ADP's on-site systems to manage their accounting, inventory control, factory communications, scheduling, leasing, sales, and service activities. In addition, ADP offers more than 95 manufacturing subsystems for warranty processing, price updates, and factory ordering.

- Applications supported include inventory control, general accounting control, lease management, automated parts cataloging, parts invoicing, service merchandising, finance and insurance, repair order billing, accounts payable, check writing, payroll processing, electronic document storage and archiving, and laser printing services.
- ADP MAX 8800 features UNIX-based software and RISC technology. It can support a dealership of virtually any size--from a single franchise to a multi-franchise, mega-dealer operation with more than 500 terminals.
- ADP's small dealership systems are customized to meet specific needs. The turnkey systems support a range of functions, from integrated accounting to dealer-to-factory communications.
- ADP's Integrated OfficeSM, introduced in 1994, combines Lotus 1-2-3 and WordPerfect onto ADP's UNIX-centered Motorola platform. It enables users to work with spreadsheet and word processing programs on ADP terminals.
- ADP Lease QuoteTM, introduced in 1992, allows dealers to simultaneously compare multiple leasing sources, giving sales personnel the ability to show customers side-by-side funds sources and buy-versus-lease comparisons.
- ADP LaserStationTM allows dealers to print from a single laser printer all types of customer communications, including

customer satisfaction surveys, service reminders, invoices and statements—replacing costly preprinted, carbonized forms. More than 12,000 LaserStations are installed worldwide.

- Automated Collision Estimating (ACE) integrates ADP's repair estimating application for auto body shops with its parts and service applications.
- Document Storage & Data Archiving—a paperless archiving system—uses optical disk and scanning techniques to electronically scan, store, and retrieve purchase orders, invoices, checks, other documents, and customer signatures.
- The New Vehicle Order System increases vehicle order accuracy, improves vehicle management, and reduces floor plan interest expense.
- The Used Vehicle Network allows dealers to manage their used vehicles more efficiently.

ADP's Manufacturer-Dealer Communications uses an on-site computer to link manufacturers with their dealers for ordering vehicles, warranty claims processing, delivery reporting, pricing updates, and vehicle and parts locating. These dealerships can also use the service for other processing functions such as financial reporting and inventory management.

ADP also provides data communication networks to link dealers to state department of motor vehicle databases for lienholder and driver's license information and vehicle registration services.

Claims Services

Through its Claims Solutions Group (CSG), ADP provides computerized estimating and availability services to insurance companies, claims adjusters, repair shops, and salvage yards involved in auto collision repair and valuation in the U.S. and Canada.

CSG offers the following product lines:

- Audatex is an on-line collision repair estimating system. The system links portable and stationary client terminals to ADP's proprietary database in Ann Arbor (MI). The database contains part descriptions, part numbers, current part prices, and cost and labor hours information on repairing and replacing parts for virtually all models of autos and trucks produced since 1970.
- Vehicle Valuation Services is an automated valuation service by which ADP provides reports to its clients to enable them to determine the value of cars or trucks that have suffered a total loss. This database contains current pricing information based on millions of used cars that are advertised for sale by car dealers and individual owners in the U.S. and Canada and on sales records of certain auto dealer clients.
- Parts Exchange is an automated parts locating and pricing service provided to insurers, manufacturers, distributors, and repair shops. The service offers data—including comparative costs, location, and availability—on parts from more than 1,000 stocking distributors.
 - Parts Exchange-New searches for new parts availability of over 3 million parts from more than 1,000 stocking distributors.
 - Parts Exchange-Salvage provides identification, pricing, and location of recycled parts available from dismantlers and salvage yards throughout the U.S.
- Through its Hollander parts services business, CSG supplies inventory management systems to over 3,000 salvage yards. EDEN, its communications network, allows electronic parts location between yards.
- ShopLink enables body shops to prepare computerized repair estimates of damaged autos and transmit them directly to an insurance company for claim approval. About 1,500 high-quality repair shops now use this service.
- Audapoint, introduced in late 1992, is a portable laptop estimating system designed for claims adjusters. Graphics, text, and data of the complete Audatex database are stored on CD ROM for interactive access.
- PenPro, introduced in 1994, is the first pen-based mobile claims workstation. Estimating tools are delivered on a touch-screen laptop that includes a one-gigabyte digital graphics database with parts data and repair times for all vehicles manufactured since 1975.
- Photolink is a digital imaging system that can integrate images into electronic files to support claims information.
- Accupro is a property estimating system for homeowners' claims, designed for field appraisers.

As a result of its acquisition of National BioSystems, ADP can evaluate the appropriateness of medical treatment and invoicing for auto accident victims.

- The core product, Provider Bill Audit, evaluates soft-tissue injury claims.
- National BioSystems' clinical databases and outcomes measurement can also be strategically important for broader health care services.

CSG is a major user of ADP's Autonet network for data communications between insurance company claim centers and ADP's database of auto parts and repair-labor information.

In 1995, CSG enhanced its parts services by acquiring the AutoInfo salvage yard network, serving 3,000 clients.

ADP International

ADP is committed to expansion outside the U.S. In fiscal 1995 the company's international revenue was over \$225 million, predominantly from businesses in Canada and Europe.

In various European countries, ADP offers its Employer, Brokerage, and Dealer services.

Through its subsidiaries, ADP Nederland B.V., ADP Financial Information Services (U.K.) Limited, and ADP Network Services Limited (U.K.), ADP provides a full range of employer services for 23,000 clients.

- ADP Nederland is a leading provider of payroll and human resource services. In fiscal 1995, it added an offering for the large government sector.
- ADP Nederland also acquired Infotech, the leading provider of employer services to temporary employment agencies.
- ADP has extended its services in the U.K. to include outsourced payroll administration.

The Brokerage front-office business now has 2,200 client terminals in 14 countries outside North America.

- In 1995, Brokerage Services acquired Wilco International, which offers a rapidly growing global multicurrency clearance and settlement service for international securities.

Dealer Services currently provides dealer management systems to over 5,000 clients outside North America.

- ADP-Autonom is a leading supplier to General Motors/Opel dealers in Germany.
- In the U.K., ADP-Modems delivers systems to General Motors/Vauxhall.
- In March 1995, ADP acquired Turbodata, a leading European auto dealer services company with 3,000 clients in Benelux, France, and Germany.
- During fiscal 1995, Dealer Services also expanded its international presence by acquiring a small company in Taiwan.

Other

ADP Network Services also maintains ADP's Autonet packet-switched teleprocessing network. Autonet's prime function is to aid other ADP divisions with more efficient data communications.

The ADP Credit Corp. subsidiary provides computer leasing and financing services, primarily to clients of Dealer Services in the U.S. and Canada who lease on-site computers as part of ADP's total service solution.

Computer Hardware

ADP uses more than 100 mainframes (excluding minicomputers) in its various data centers.

- Employer Services maintains about 45 data centers in various locations in the U.S. and Europe. Services are offered on a variety of computer platforms including IBM, IBM-compatibles, Digital Equipment Corporation, Apple, Motorola, and Hewlett-Packard.
- Brokerage Services maintains operations centers in Mt. Laurel and Jersey City (NJ), using primarily IBM, DEC, and Amdahl systems.
- Dealer Services maintains data centers throughout the U.S. and Canada.
- Claims Services uses the Network Services data center in Ann Arbor to provide services to its clients.
- ADP Network Services maintains its primary data center in Ann Arbor (MI). Equipment used to provide network services includes a large number of DEC System 10s and 20s and DEC VAXs.

Marketing and Sales

ADP markets its products and services through a direct sales force.

Peachtree software is marketed through computer stores and other retail outlets.

Alliances

In January 1996, ADP and SAP® America, Inc. announced an alliance to provide clients of SAP's R/3 enterprise applications software with a standard interface to ADP's payroll outsourcing services.

- This interface will provide complete payroll processing, in addition to allowing SAP customers to use ADP's other value-added services.
- The partnership also provides for the sharing of clients, as well as joint marketing and sales efforts.

Employer Services has various alliances as follows:

- ADP has formed a joint venture with Checkfree Corporation to provide electronic banking and bill payment services to small businesses.
- ADP has licensed Kronos' timekeeping software for use with its human resources products/services.
- ADP has a source code license with PeopleSoft for its client/server products.

Dealer Services alliances include:

- ADP has entered into an OEM agreement with Motorola to purchase its UNIX/RISC computer systems.
- The company also has partnerships with various manufacturers.

Competitors

ADP's competitors, by service area, include the following:

- Employer Services—Ceridian Employer Services, Paychex, and various regional and local processors, including banks, accounting firms, and independent businesses
- Brokerage Services—Reuters/Quotron, ILX/Thompson Financial, Beta, and SunGard
- Dealer Services—Reynolds and Reynolds, and UCS

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Baan Company, N.V.

[New Search](#)

UPDATED:
05/01/1997

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Summary Info

Chairman/CEO:	Jan Baan
Status:	
Parent:	Public
Employees:	5,500 (12/1997)
Revenue:	\$ 684.0 mil
Year End	Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.
Enterprise Applications Solutions	Germany

Key Points

- Baan is one of the major European independent software vendors
- For 1996, Baan reported record earnings with net income up 138% on revenues that increased 80% year-on-year
- Baan targets the small to medium sized market with a launch of BAAN IV BackOffice in co-operation with Microsoft
- Baan Business Systems Limited is a new company that is formed to target the low end of the market
- The most recent acquisition is US-based Aurum Software – a deal worth \$250 million.

Company Description

Baan is a worldwide provider of Enterprise Resource Planning (ERP) software and consulting services. The company's main competitor is SAP AG.

The company was founded in 1978 in Ede, the Netherlands by Jan Baan who is the chief executive officer and chairman of Baan.

In 1993, Baan commenced a major investment program in North America and today operates from dual headquarters in Putten and in Menlo Park, California. Baan trades on both the Amsterdam Stock Exchange and Nasdaq.

Operations and Structure

Baan has direct or indirect sales and support organisations in 59 countries throughout the world.

The company has three linked Centres of Expertise in India, the Netherlands and the USA. These centres are responsible for the localisation of Baan's products which are available in more than 20 languages.

Baan has marketing and development partnerships with a large number of hardware, software and consulting companies (see "Acquisitions and Alliances" section).

In the middle of 1996, Baan announced plans to take its ERP software into small to medium sized companies. To support this move, the company formed a new company, Baan Business Systems Ltd, that will focus on this segment of the market while Baan Company will remain focused on large customers.

Exhibit 1 provides an overview of Baan's top management.

Exhibit 1

Baan's Corporate Management

Name	Position
Jan Baan	CEO and chairman
Tom Tinsley	President, COO
Jan Westerhoud	CFO
Amal Johnson	Executive VP, Baan Affiliates & Marketing
Karl-Heinz Voss	VP, EMEA Operations
Konrad Bank	President, Asia Pacific
Kevin Calderwood	President, Americas
Laurans van der Tang	Executive VP, R&D
Christine Pittman	VP, Global Consulting
Otto van der Tang	VP, Global Support
Gerrit van Munster	VP, Human Resources
Wim Heijting	Secretary, General Counsel

Source: Baan Company N.V.

The following is a list of Baan's target vertical markets:

- Aerospace and Defence
- Automotive
- Electronics
- Heavy Equipment & Contract Manufacturing
- Process Industries.

To support its vertical market solutions, Baan has established solution centres in the US and Europe (Germany and the Netherlands).

Company Strategy

Baan's corporate strategy consists of six major points:

- simplify the complexity and reduce the risk of traditional ERP implementation
- expand global distribution, sales, services and support capabilities
- sustain leadership through focus on strategic vertical markets
- leverage third party implementation providers
- continually innovate products
- maintain Baan company values.

On a product level, what the company calls Dynamic Enterprise Modelling is core to Baan's strategy for the coming generations its ERP software. The company says that the philosophy of DEM is that

companies should be able to implement continued business process improvement as opposed to "Big Bang" BPR and software implementation.

Baan also believes that DEM will enable it to take its ERP software to the small to medium-sized market. Central to this plan is also Baan's focus on the desktop and a strategic alliance with Microsoft. However, Baan has declared that it is still completely committed to Unix implementations.

Baan is also looking at adapting its software for Internet/Intranet technology. The company has aired an interest in network computers, although it has not fully declared its support for this technology.

In June 1996, Baan declared that it expected its annual revenues to grow to more than \$1 billion by the end of the decade. The company's believes that making its software available for Microsoft NT is key to reach this goal. Baan expects 50% of its revenues from NT.

Financial Information

Exhibit 2 provides a summary of Baan's financial results for the past five years.

Exhibit 2

**Baan: Five-Year Financial Summary,
1992 to 1996, (FYE 31-12) (\$ Millions)**

Year	1992	1993	1994	1995	1996
Revenue	47	63	123	216	388
Annual Growth Rate	N/A	34%	95%	76%	79%
Net Income (Loss)	6.8	(2.1)	1.2	15.3	36.3
Net Income as % of Revenue	15%	N/A	1%	7.1%	9.4%
Number of Employees	N/A	796	943	1,525	2,389
Revenue per Employee	N/A	0.079	0.130	0.142	0.162

Source: Baan/ INPUT

The fourth quarter of 1996 was the seventh consecutive quarter Baan reported growth. This quarter also produced record earnings at \$15.8 million on turnover of \$123.9 million.

Baan continued its strong growth for 1Q97 with revenues up 59% at \$124 million year-on-year. Net income for the first quarter of this financial year was \$12.3 million, up 184% over 1Q95. Research and development costs more than doubled to \$42 million and now account for 11% of revenues.

Market Analysis

An analysis of Baan's world-wide revenues by sales category is provided in Exhibit 3.

Hardware is non-core to Baan's activities and represents a diminishing part of the total turnover. In 1995, hardware and other services accounted for 11% of the total.

Baan operates its business in three main geographical areas, namely EMEA (Europe, Middle East and Africa), North America (USA and Canada) and the Rest of the World (Asia Pacific and Latin America).

Exhibit 3

**Baan: Revenues by Category,
1996 (\$ Millions)**

Delivery Mode	Revenues in \$ Millions	Share
Licenses	224.2	58%
Maintenance and Services	152.4	39%
Hardware and Other Revenues	11.3	3%
Total Revenue	388.0	100%

Source: Baan

Exhibit 4 shows Baan's revenues by major operating region.

Exhibit 4

**Baan: Revenues by Region,
1996 (\$ Millions)**

Region	Revenues in \$ Millions	Share
Europe, Middle East Africa	188	48%
North America	147	38%
Rest of the World	53	14%
Total Revenues	388	100%

Source: Baan

An analysis of Baan's European revenues by Industry Sector is provided in Exhibit 5.

Exhibit 6 shows Baan's European revenues by country.

Exhibit 5

Baan: European Revenues by Industry Sectors, 1996 (\$ Millions)

Delivery Mode	Revenues in \$ Millions	Share
Discrete Manufacturing	60	32%
Process Manufacturing	50	27%
Wholesale Distribution	28	15%
Other	50	27%
Total European Revenue	188	100%

Source: INPUT Estimates
Percentages are rounded

Exhibit 6

Baan: European Revenues by Country, 1996 (\$ Millions)

Country	Revenues in	Share
---------	-------------	-------

Country	\$ Millions	Share
The Netherlands	83	44%
Germany	54	29%
United Kingdom	18	10%
Other	33	17%
Total Revenues	188	100%

Source: Baan/ INPUT estimates

Key Products and Services

The Baan family of software products consists of BAAN Applications, Orgware and BAAN Tools. The company further offers a range of value-added services directly to selected end-user customers, including project management, product consultancy and technical support. For its wider customer base, Baan relies on partners to offer these services.

BAAN IV Applications are open system client/server solutions that operate on a range of different platforms. The range of applications support the whole business processes. The range includes:

- BAAN Manufacturing
- BAAN Project
- BAAN Distribution
- BAAN Transportation
- BAAN Finance
- BAAN Service

BAAN Orgware is a set of software tools and methodologies that the company has developed to assist customers and implementation partners in configuring, reconfiguring and implementing BAAN IV applications. Key modules in Orgware include:

- Enterprise Modeler
- Enterprise Performance Manager
- Enterprise Reference Models
- Enterprise Implementer

These modules are used for areas, such as selection and configuration of applications; business procedures and business objects; end user desktop configuration; data conversion; training plan generation; hardware and IT services configuration; plus project budgeting, planning and monitoring.

BAAN Tools are 4GL software tools that provide a fully featured development environment with facilities for documentation, translation, installation and maintenance of software.

Baan's applications have traditionally been implemented in Unix environments. However, in December 1996 the company announced that it had successfully shipped its BAAN IV BackOffice system which is an integration of BAAN IV with Microsoft BackOffice. This new product, which has support for Microsoft NT and Microsoft SQL server, is strategic for Baan's move into small to medium-sized companies.

Recent Projects and Major Clients

At the end of the 1996 financial year, Baan had licensed around 3,500 system installations to over

2,200 customers worldwide. Customer sites now range from 4 to more than 4,000 users.

Recent projects include:

- Noranda Aluminum Inc. has selected Baan's process solution for its aluminium smelter operation
- Solectron Corporation, a global provider of electronics manufacturing services, was one of the first companies to install BAAN IV BackOffice.

Exhibit 7 shows some of Baan's major customers.

Acquisitions and Alliances

Baan's most recent acquisition is US-based Aurum Software. This deal, worth \$250 million will provide Baan with customer relationship management software. The company will now be able to bridge sales, marketing, and customer service applications with ERP.

Exhibit 7

Baan: A Selection of Major Customers, 1996

Vertical Market	Customer
Electronics	Advanced Micro Devices Hitachi Ltd Nokia Northern Telecom Limited
Heavy Equipment	Asea Brown Boveri Group Philips Medical Systems B.V. Carrier Corporation EUCLID-HITACHI Heavy Equipment, Inc.
Process Industries	George Weston Foods Krupp Stahl Europe Carton Sonoco Products Company
Aerospace and Defence	British Aerospace Limited Lockheed Martin The Boeing Company
Automotive	Ford Motor Company Mercedes Benz US International Daf Trucks N.V. Fiat Auto Mains
Hybrid Manufacturing	Allied Signal Laminat Systems Inc. Eaton Technologies, Inc. Teknikon Furniture Systems

Source: Baan

In November 1996 Baan acquired Antalys Inc., a vendor of a configuration application called Classys. The product, which Baan plans to integrate into BAAN IV, automates configuration and pricing for complex products and services. Antalys, which will operate as a subsidiary of Baan, will continue to offer a standalone configuration product.

In May 1996, Baan bought the Canadian company, Berclair Inc., for an undisclosed sum. Berclair is a software firm specialising in invoice processing.

The use of partners is key to Baan's marketing strategy. The company has established a *Software Partners Program* for third-party software providers. The company's partners include:

- Antalys
- ADP-GSI
- BAIN
- Berclain
- Business Objects
- SQL Systems
- Sterling Commerce
- Wonderware

The company's Technology Partners include:

- Compaq
- Digital Equipment Corporation
- Hewlett Packard
- IBM
- Oracle
- Sequent
- Sun Microsystems

Baan has also developed strategic alliances with a number of consulting companies on local, international and global levels. Some of its major consulting partners include:

- Cap Gemini
- Ernst & Young
- IBM ISSC
- Price Waterhouse
- Andersen Consulting
- EDS
- Bull S.A.
- Perot Systems Corporation
- Origin

Baan further has strong alliances with Microsoft (see "Company Strategy" section). The company has also recently entered into an alliance with Hyperion Software that will see joint development and marketing efforts involving Baan's ERP software and Hyperion's financial applications.

INPUT Assessment

The past couple of years, Baan has been through a very positive development. The company has grown both revenues and profits strongly, while at the same time increasing its investment in research and development.

One of Baan's strengths is its channel and partner strategy which provides it with good geographical coverage while minimising its own costs for establishing operations in a large number of countries.

The company further shows the ability for short time-to-market of new products and strategies. One example is its recent launch of BAAN IV for NT and the desktop which is important for its ambitious plan to become a \$1 billion company by the end of the decade.

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Boole & Babbage, Inc.



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03/01/1996

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Company Web Site:
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Summary Info

Chairman:	Franklin P. Johnson, Jr.
President:	Paul E. Newton
Status:	Public
Employees:	780
Revenue:	\$ 167.2 mil
Year End	Sep-1996

Key Points

- Boole & Babbage is a leader in enterprise automation software for managing distributed systems. The company is committed to supporting open systems and the growing client/server market to help IS organizations reduce costs and increase systems availability.
- COMMAND/Post™, the company's flagship enterprise automated systems management product, provides a central point of control for managing and automating all computer networks and applications in the IS enterprise.
- The company continues to define its leadership role in the large-systems arena with its Parallel Sysplex-ready offerings based on its BBI™ distributed systems architecture.

Company Description

Boole & Babbage, founded in 1967, provides systems software solutions for help desk, automation, operations, network administration, system administration and storage management. In addition to its proprietary products, the company also distributes certain third-party products that complement its software product line and provides consulting and processing services.

The company has more than 12,500 products installed at more than 5,000 sites worldwide.

The company announced separate 3-for-2 stock splits in November 1994 and December 1995.

Structure and Organization

Boole & Babbage automated enterprise management products are split into four categories—the COMMAND/Post product family, the Ensign™ product family, the MainView™ systems management line of products, and Storage Management and Automation products (developed and supported through the Boole & Babbage Storage Division).

Boole & Babbage has 42 offices in 26 countries worldwide, including three data centers and four development labs. The company has corporate headquarters in San Jose (CA) and European headquarters in Dublin (Ireland).

- The company's North American offices are in Atlanta (GA), Chicago (IL), Dallas and Houston (TX), Los Angeles, El Segundo and San Francisco (CA), New York (NY), O'Fallon (IL), Warwick (RI), Saddle Brook (NJ), Toronto (Canada) and Reston (VA).
- Boole & Babbage Europe, the company's European subsidiary, has offices in Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland, the Netherlands and the U.K.
- Boole & Babbage International is a subsidiary based in Australia and Japan that markets and supports the company's products in the Pacific Rim.
- Representative offices are in Bangkok, Bogota, Buenos Aires, Caracas, Guayaquil, Hong Kong, Istanbul, Kuala Lumpur, Lima, Malaysia, Mexico City, Rio de Janeiro, Riyadh, Santiago, Sao Paulo, Seoul, Singapore, South Africa, and Tel Aviv.

Company Strategy

The Boole & Babbage mission is to help customers increase availability in their organizations by managing systems for all types of computers and communications. The company's strategy is to provide enterprisewide management products that automate the task of monitoring, administering, diagnosing and correcting problems in the entire enterprise—from the mainframe to the desktop, including storage management.

The company's comprehensive family of automated enterprise management software covers all elements of the computer network and tracks mainframe and minicomputer operating system performance. It allows consistent administration of distributed client/server systems on diverse platforms, from a central point of control.

The corporate mission is focused on enterprise automation through internal product development and strategic partnership acquisitions that include integration with complementary products, as well as distribution agreements and reseller arrangements.

Boole & Babbage has made its UNIX-based COMMAND/POST product line the keystone of its strategy for addressing the client/server market. The COMMAND/POST open architecture provides the ability to have two-way communications with virtually any device in the enterprise computing environment.

Boole & Babbage is also committed to making automation easier for its clients through product design and standardizing on the REXX language for automation scripts. Scripts for the COMMAND/POST family of products are based on REXX.

In support of migrations to the Parallel Sysplex, Boole & Babbage is delivering a systems management architecture that can deal with traditional mainframes and the new Parallel Sysplex.

- MainView and ProSMSTM systems management products will support IBM Parallel Sysplex Architecture offerings. In addition, MainView products will support the participating transaction products in IBM's new Parallel Sysplex environment.
- Boole & Babbage "plex-ready" products include MV MANAGER™ for MVS and CMF® MONITOR, built on the Boole & Babbage Intercommunication Facility (BBI) architecture. BBI technology provides the strategic advantage of Single System Image, which allows users to treat and manage a collection of parallel systems and subsystems as if they were a single entity.
- In 1996, Boole and Babbage's goal is to stay ahead of its customers' needs as their client/server systems transition from specialized-use status to full enterprise-wide solutions.

Financials

Fiscal 1995 revenue reached \$154.4 million, a 17% increase over fiscal 1994 revenue of \$131.8 million. Net income rose 36%, from \$10.2 million in fiscal 1994 to \$13.9 million in fiscal 1995. A five-year financial summary follows:

Boole & Babbage, Inc. Five-Year Financial Summary (a) (\$ Millions, except per-share data)

Item	Fiscal Year				
	9/95	9/94	9/93	9/92	9/91
Revenue	\$154.4	\$131.8	\$118.2	\$110.5	\$100.8
• Percent change from previous year	17%	12%	7%	10%	10%
Income before taxes	\$19.9	\$14.8	\$11.2	\$7.7	\$(1.8)
• Percent change from previous year	34%	32%	45%	173%	N/A
Net income (loss)	\$13.9	\$10.2	\$7.6	\$5.3	\$(1.2)
• Percent change from previous year	36%	11%	43%	542%	N/A
Earnings (loss) per share (b)					

• Percent change from previous year	\$1.21 29%	\$0.94 (51%)	\$0.70 32%	\$0.53 508%	\$(0.13) N/A
-------------------------------------	---------------	-----------------	---------------	----------------	-----------------

(a) Fiscal years 1991 through 1993 restated to reflect adoption of FAS 109, accounting for income taxes.

(b) Restated to reflect 3-for-2 stock splits in November 1994 and December 1995.

Product development and support costs rose less than 1% in fiscal 1995 and represented 16% of total revenue, compared to 18% of revenue in both fiscal 1994 and fiscal 1993.

Revenue Analysis by Product Line

Approximately 52% of Boole & Babbage's fiscal 1995 revenue was derived from systems software product licenses, 46% from software maintenance, and 2% from consulting and processing services. A three-year summary of source of revenue follows:

Boole & Babbage, Inc. Three-Year Source of Revenue Summary (\$ Millions)

Product/Service	Fiscal Year					
	9/95		9/94		9/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Product licensing	\$80.2	52%	\$64.9	49%	\$53.9	46%
Maintenance fees	70.7	46%	64.3	49%	60.7	51%
Services and other	3.5	2%	2.6	2%	3.6	3%
Total	\$154.4	100%	\$131.8	100%	\$118.2	100%

Boole & Babbage attributes fiscal 1995 results to the following:

- The client/server group had the highest growth rate, at 43%, and represented 11.5% of total licensing revenue. The company expects high growth in this group in 1996, as products such as Ensign and Stage3 begin to produce greater revenue.
- Currently, Boole & Babbage derives approximately 86% of licensing revenue from mainframe-based technologies. Plex products revenue grew 16% in 1995.
- Revenue from mainframe products grew 24% in 1995, principally as a result of built-up demand for mainframes, which produced several larger orders. The company does not expect this level of growth in mainframe products in 1996.

Interim Results

Revenue for the three months ending December 31, 1995 reached \$40.1 million, a 4% increase over \$38.6 million for the same period in 1994. Net income was \$4.3 million, compared to \$3.3 million for the same period a year ago.

Besides strong performance in its traditional markets, client/server products showed 52% growth during the quarter.

Mainframe product sales declined by 4% from the same period the prior year.

Market Financials

Boole & Babbage products are aimed at user organizations running large, mixed-vendor networks.

The typical Boole & Babbage user is a member of the information technology staff at a large corporation--vice president of information services, data center manager, MIS manager, help desk technician, or network and systems operations or administration support person.

Boole & Babbage customers are large corporate and governmental organizations. The company has clients in manufacturing, commercial banking, insurance, communications, retailing, transportation, utilities, health care and education, as well as federal, state and local government.

Geographic Markets

Approximately 37% of Boole & Babbage's fiscal 1995 revenue was derived from the U.S. and Canada, and the remaining 63% from international sources. A three-year geographic source of revenue summary is shown below.

- Domestic software licensing increased 6.6% during fiscal 1995, compared to 8.8% in fiscal 1994. This increase is credited to strong growth from the telesales group, partially offset by a flat year for the field sales force.
- International revenue increased 33% in fiscal 1995, compared to 28% in fiscal 1994. The increase is attributed to strong growth in South America and favorable exchange rates.

Boole & Babbage, Inc. Three-Year Geographic Source of Revenue Summary (\$ Millions)

Geographic Market	Fiscal Year					
	9/95		9/94		9/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S. and Canada	\$56.7	37%	\$54.4	41%	\$53.9	46%
Europe	74.2	48%	61.0	46%	54.2	46%
Other	23.5	15%	16.4	13%	10.1	8%
Total	\$154.4	100%	\$131.8	100%	\$118.2	100%

Acquisitions

In January 1996, Boole & Babbage acquired Storage Automation Facility (SAF) from Real Solutions of Bay City (MI).

- Boole & Babbage will market and support the product acquired in the transaction through its Storage Division, under the name of SG-Auto™.
- SG-Auto fully automates the monitoring of the storage subsystems and automatically initiates threshold-driven storage management procedures based on conditions in the storage subsystem in addition to time.

Employees

As of December 31, 1995, Boole & Babbage had 754 employees. As of March 1996, the company had 769 employees, including 447 in North America, and 322 in foreign countries.

Key Products and Services

Boole & Babbage currently markets more than 40 proprietary and third-party systems software products that span the entire computing enterprise. The company's automated enterprise management products are offered in four categories—the COMMAND/POST product family, Ensign™, the MainView systems management line of products and Storage Management and Automation products.

COMMAND/POST Product Family

COMMAND/POST is an enterprise-wide management system for complex heterogeneous environments. It integrates, consolidates and simplifies system and network operations control of applications, host, WAN, LAN, voice, supercomputer, and minicomputer into a central point of control.

- COMMAND/POST is a graphical, client/server software package that runs on UNIX-based Sun Microsystems workstations. It works with Hewlett-Packard's OpenView, IBM SystemView, and Sun Microsystems' Solstice, and runs on IBM RS/6000 platforms.
- COMMAND/POST options include:
 - PhonePoint--extends the operations/Help Desk to any touchtone phone

- o **COMMAND/POST connect MVS** --for full alert management, outboard console emulation and automation of MVS systems
- o **COMMAND/POST connect Ensign** --combines Ensign with the COMMAND/POST central point of control, adding alert management, system administration, and localized automation of UNIX, Novell NetWare and Windows NT systems
- When used in conjunction with AUTOCOMMAND™ automation facilities, COMMAND/POST automatically pinpoints and solves network problems such as node failure or the rerouting of data over a less congested path.

COMMAND/POST PinPoint displays system, network and application alert messages on any network-attached Windows-based desktop in the enterprise to give other divisions in IS a view of systems status.

Ensign

Ensign provides event management and systems administration for distributed, heterogeneous client/server computer networks.

- Like COMMAND/POST, Ensign also uses a distributed customizable console to integrate alert and system administration functions. From the console, users can identify problems and apply corrective actions. Through an integration toolkit, the console can also be used to launch and provide event management for third party applications, including software distribution, scheduling and trouble ticketing, as well as customers' native applications.
- Using intelligent agents, Ensign brings automation to 13 different versions of UNIX, as well as Novell NetWare and Windows NT servers, expanding its reach to the majority of client/server environments in operation today. Agents can capture alarms from these three different environments and forward them to the Ensign console, as well as COMMAND/POST, HP OpenView, IBM SystemView and Sun SunNet Manager. Through automation, Ensign can also respond to critical alerts by notifying appropriate staff through automatic E-mailing or paging.

MainView Systems Management Products

MainView is the Boole & Babbage product family for performance monitoring management and automation in MVS systems. MainView includes Boole & Babbage systems management software for IBM MVS, IMS, DB2, CICS, and DBCTL operating systems.

With MainView for MVS software products, users can maximize system availability and speed up application response times in their IBM MVS mainframe systems environments.

- **MV MANAGER™ for MVS** tracks system performance for MVS/XA, MVS/ESA and Parallel Sysplex environments.
- **AutoOPERATOR™ for MVS** automatically generates alerts to notify systems managers of system troubles. It also contains built-in solutions to solve common system problems such as system failure.
- **MainView Vistapoint** provides a panoramic view of application service levels across multiple subsystems on the same or different hosts.
- **MainView for MQSeries** provides performance and automation of IBM MQSeries messaging middleware to increase availability.
- **InTune** provides an interactive view of the internal performance of MVS applications to pinpoint program delays.

MainView products for IMS, DB2, CICS, and DBCTL are as follows:

- **MainView for IMS**
- **MainView for DB2**
- **MainView for CICS**
- **MainView for DBCTL**

The MainView product line architecture is based on BBI, a systems management architecture that allows MainView products to manage service levels for applications executing in a distributed environment.

- MainView complements two emerging standards for systems management software: IBM's SystemView and the Open Software Foundation's Distributed Management Environment (DME). Boole & Babbage is committed to developing MainView products that conform to SystemView.

Boole & Babbage also markets various third-party products that complement the MainView product line for comprehensive data center management. Companies that provide products for the European and international markets include Diversified Software Systems, 4th Dimension Software, Simware and Tone Software.

Storage Management and Automation Products

The Boole & Babbage Storage Division, previously known as EMPACT Software, develops storage automation products that fine-tune and optimize storage use.

As IBM's Storage Management Subsystem (SMS) technology emerges as the new data-storage standard, Boole & Babbage offers a family of automated storage products for this environment called ProSMS™.

- ProSMS automates the tedious manual tasks of converting storage formats, doing data backups and allocating storage space. It views SMS as another subsystem, such as CICS.
- ProSMS products include StorageGUARD™ for storage management, EasySMST™ for converting and enhancing disk formats, EasyPOOL™ for standards compliance, StopX37/11™ for dynamic recovery and HIPER-CACHE™ and PAGE-MANAGER™ for disk performance optimization.
- ProSMS Version 3.4, released in August 1995, features more than a dozen new interactive on-line reports and corrective commands for simplified management and increased efficiency of DFHSM.

Boole & Babbage has exclusive distribution rights to Emprise Software Stage3, a solution for centralized backup storage for distributed systems. It works with existing LAN backup tools and transfers the backed-up data to a mainframe for storage and management through hierarchical tools.

In November 1995, the company released Stage3 for the Microsoft Windows NT operating system, offering an enterprise, LAN-to-mainframe backup solution. Stage3 for NT is the only NT-native solution currently available.

Software Support and Other

The company offers product maintenance, which includes enhancement and updating of product capabilities to accommodate changes in a customer's hardware and software.

- One year of maintenance is included in all of the company's licenses.
- Thereafter, optional maintenance renewals are available annually for 15% to 20% of the current product price.

Boole & Babbage Computer Services provides utility processing to customers from its data center in San Jose.

Clients

Boole & Babbage products are targeted to user organizations running large, mixed-vendor networks. Typically, a Boole & Babbage user is a member of the information staff at a large corporation—an MIS manager, a help desk technician or a network and systems operator or administrative support person.

Boole & Babbage serves more than 5,000 customers from a variety of industries worldwide. Among Boole & Babbage customers are American Airlines, Alcatel, Amoco, AT&T, Banc One, Barclay's, Boeing, Browning-Ferris Industries, Chrysler Corporation, CITGO Petroleum, Home Depot, Metropolitan Life, Motorola Incorporated, Pacific Bell, Salomon Brothers, Shell Oil, Sprint, Stone Container Corporation, Traveler's Insurance and Wells Fargo.

Marketing and Sales

The company sells its products domestically through its own distribution division, Boole & Babbage North America. In Europe, the company's products are sold through its European subsidiary, Boole & Babbage Europe. Boole & Babbage International markets products in the Pacific Rim. Ensign is sold through the VAR channel.

Boole & Babbage also has distributors in Latin America, Asia, and the Middle East.

Alliances

To ensure that Boole & Babbage benefits by cooperation with leaders in the industry, the company has implemented several types of relationships.

Development Partnerships

Boole & Babbage is working with IBM to develop on-line transaction processing management systems and software for parallel

processing.

Boole & Babbage's BBI technology is at the core of the IBM CICSplex System Manager/ESA (CICSplex SM). CICSplex SM, which is aimed at managing complex collections of CICS systems, is the initial outcome of a three-year joint development agreement between Boole & Babbage and the IBM Hursely Laboratory (U.K.).

Boole & Babbage entered into a joint venture to form a subsidiary company called Joint Systems Technologies (JST), with offices in Tokyo and Osaka.

Marketing Partnerships

Boole & Babbage has several agreements relative to its COMMAND/Post product family, including an OEM agreement with Hewlett-Packard for distribution of HP OpenView Network Node Manager in conjunction with COMMAND/Post.

Boole & Babbage has a distribution agreement with Shany, Inc. that allows Boole & Babbage to offer AlertVIEW to its customers. AlertVIEW is a network application management program that monitors PC LAN applications and provides alerts, automated responses and automated problem prevention for DOS, Windows and OS/2 workstations connected to NetWare, LAN Manager and LAN Server. When used together, AlertVIEW will forward LAN application events to COMMAND/Post.

The company also has an agreement with JBM Electronics to distribute protocol converters that allow console connectivity, emulation and automation of the full line of Unisys mainframe processors using COMMAND/Post.

In addition, EMPACT Software, the Storage Automation Division of Boole & Babbage, has partnered with IBM to help data centers achieve automated storage management through IBM's Data Facility Storage Management Subsystem (DFSMS) platform.

The Federal Government Program is a sharply focused distribution channel attuned to the needs of IS managers within federal bureaus and departments.

The Business Partners Program charter is to develop a new VAR channel for the company's client/server products for event management of distributed UNIX, Novell NetWare and Windows NT environments, as well as to initiate new systems integrator partnerships.

In addition, the company has partners in the following applications areas their solutions address when used in combination with Boole & Babbage products:

Frameworks--Hewlett-Packard (OpenView), IBM (SystemView), Sun Microsystems (Solaris)

Help Desk--Remedy Corp. (Action Request System, help desk/trouble ticketing), Help/Systems (ROBOT products, automated AS/400 management), Answer Systems (Apriori, help desk/problem resolution, support management), Quintus (HclpQ, trouble ticketing), Texas Digital (QuickCOM, visual message alert system), and Peregrine ServiceCenter

Ensign Synergy--OCS, Tangram Enterprise Solutions, Inc., Remedy Corp.

Supplier Relationships

Boole & Babbage uses systems from various vendors to build its client/server management products, including those of Sybase and Sun Microsystems.

Competition

Mainframe software competitors include Candle Corporation, and Landmark.

COMMAND/Post competitors are MAXM and OSI.

Ensign competitors include Computer Associates (CA Unicenter for UNIX), OpenVision and Tivoli.

INPUT Assessment

Boole & Babbage is well positioned with a breadth of product offerings in one of the strong growth areas for systems software--systems management software.

Boole & Babbage's key strength is offering systems software products that effectively manage the volatility of mission-critical applications across multiple platforms.

In addition, Boole and Babbage's products can touch every element of the enterprise, providing a focal point for management of the distributed enterprise from mainframe to desktop.

Challenges for the company include:

- Growing nontraditional mainframe product revenue (client/server and parallel processor) as quickly as possible
- Building a VAR channel to sell Ensign as a stand alone product

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Boston Consulting Group, The

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UPDATED:
02/04/1999

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Boston, MA 02109
U.S.

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617-973-1200

Fax:
617-973-1399

Company Web Site:
<http://www.bcg.com>

Summary Info

Chairman:	John S. Clarkeson
President/CEO:	Carl Stern
Status:	Private
Parent:	
Employees:	3,000 (12/1998)
Revenue: *	\$ 700.0 mil
Year End	Jan-1900

Key Points

- The Boston Consulting Group (BCG) is an international general management consulting company, a pioneer in strategy consulting.
- In the 1994-1996 timeframe, BCG opened new offices in Dallas, Seoul, Moscow, Hamburg, Bangkok, Buenos Aires, Helsinki, London, Lisbon, Singapore, Jakarta, and Atlanta.
- During 1995, BCG's revenue grew by 28%.

Company Description

Founded in 1963, BCG has a special focus on analysis and strategy formulation.

BCG was founded by Bruce Henderson, a former Arthur D. Little consultant, as the world's first specialist strategy consulting firm.

The firm has developed various analytical tools and business concepts for understanding and enhancing competitive position. Well-known BCG tools/concepts include product portfolio management or the *Growth Share Matrix*, sustainable growth, experience curves, the value of marketshare and average costing, *Time-Based Competition*, and *Segment-of-One® Marketing*.

Organization and Structure

BCG is a corporation with approximately 150 to 200 officers. The firm has ten worldwide practice areas and consultants work within a typical function/industry matrix.

The ten groups focus on strategic issues and include:

- Consumer and retail
- Corporate development
- Energy and utilities
- Financial services
- Health care
- High technology
- Industrial goods
- Information technology
- Organization
- Operational effectiveness

Each practice area is headed by an officer of the firm and is supported by officers and specialists from different regional offices.

BCG has 36 offices in major cities around the world. Offices are located in Amsterdam, Atlanta, Auckland, Bangkok, Boston, Brussels, Buenos Aires, Chicago, Dallas, Dusseldorf, Frankfurt, Hamburg, Helsinki, Hong Kong, Jakarta, Kuala Lumpur, Lisbon, London, Los Angeles, Madrid, Melbourne, Milan, Monterey, Moscow, Munich, New York, Paris, San Francisco, Seoul, Shanghai, Singapore, Stockholm, Sydney, Tokyo, Toronto, and Zurich.

Company Strategy

BCG concentrates on understanding business competition and on helping companies succeed in highly competitive markets. The firm is growing rapidly in the overseas marketplace. Over the past 3 years, BCG opened 12 new offices in major cities worldwide.

With its focus on analysis and strategy formulation, BCG mostly recruits consultants that have MBAs or other advanced qualifications in addition to managerial experience. Skills are developed on the job through a formal training program via a network within the organization.

BCG has invested resources and placed special emphasis on professional recruitment, training and ongoing staff development activities. The firm believes in maintaining a common culture, practice and set of uniform standards across the worldwide organization, and therefore supports the idea of continuous international exchange and working relationships that promote global teamwork.

Financials

BCG's 1995 worldwide revenues were \$550 million, a 28% increase over 1994 revenue of approximately \$430 million.

A three-year revenue summary appears on the following page.

The Boston Consulting Group Three-Year Revenue Summary (\$ Millions)

Item	Fiscal Year		
	1995	1994	1993
Revenue	\$550	\$430	\$340
<ul style="list-style-type: none"> Percent change from previous year 	28%	26%	21%

Market Financials

BCG provides consulting to all the major vertical and global markets, from electronics, banking, consumer goods and forest products to manufacturing, pharmaceuticals, and transportation.

Geographic Markets

With the opening of the Buenos Aires office this past year, BCG now reports North America revenue in combination with South America. In 1995, this combined revenue was \$197 million.

A three-year source of revenue summary by geographic market follows:

The Boston Consulting Group Three-Year Geographic Source of Revenue Summary (\$ Millions)

Item	Fiscal Year					
	1995		1994		1993	
Geographic Market	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
North and South America	\$197	36%	\$166 (a)	39%	\$131 (a)	39%

			(a)		(a)	
Other international	353	64%	264	61%	209	61%
Total	\$550	100%	\$430	100%	\$340	100%

(a) Includes revenue only from North America during 1994 and 1993.

Employees

The firm employed about 1,320 consultants on average in 1995.

Key Products and Services

BCG offers strategic analysis and consulting services in the following categories:

- o Business strategy
- o Marketing and sales strategy
- o Strategy audit
- o Industrial policy
- o Organization
- o Time-based competition
- o New-product development
- o Portfolio strategy
- o International development
- o Optimizing equity value
- o Diversification
- o Financial policy
- o Product positioning
- o Information technology

Consulting services might involve work that includes:

- Developing responses to changes in the competitive environment
- Identifying and pursuing opportunities for new and repositioned brands
- Accelerating responsiveness to customers in sales, manufacturing, delivery, and new-product development
- Creating opportunities for strategic alliances, joint ventures, acquisitions, and divestitures
- Trading off resources within business portfolios
- Helping organizations adapt to a new strategy
- Transforming entrepreneurial ventures into sustainable businesses

Clients

BCG's clients include several of the world's industry leaders as well as a number of medium-sized public and private companies, government agencies, and nonprofit organizations. A majority of the firm's clients are among the 500 largest companies in North and South America, Europe, Asia, and Australia.

A partial listing of clients includes AMR, AST Research Inc., Barclays Global Services, Canadian Airlines, Karolinska Hospital, GTE, Glaxo Wellcome, Grupo Anaya, Miller Brewing Co., Monsanto, and NYNEX.

Marketing and Sales

BCG conducts various marketing and promotional activities such as hosting conferences for senior executives, and puts out publications such as *Perspectives* that focus on current and emerging issues of interest to senior management.

Competition

BCG faces significant competition from major consulting firms including McKinsey, A.T. Kearney, Andersen Consulting, Coopers & Lybrand, Booz Allen & Hamilton, Gemini Consulting, CSC Consulting, Mercer Management Consulting, and

Monitor.

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Bull

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UPDATED:
07/01/1998

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France

Phone: 33 0 1 39 66 60 60 **Fax:** 33 0 1 39 66 60 62

Company Web Site:
<http://www.bull.com>

Summary Info

Chairman/CEO: Guy de Panafieu
Status: Public
Employees: 21,267 (12/1997)
Revenue: \$ 4,217.0 mil
Year End Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	U.S.
Customer Care and Billing Solutions	Europe
Desktop Services	Europe
Desktop Services	U.K.
Intranet Development	U.K.

Key Points

- Bull is an international I.T. group based in Europe with 21,000 people and operations in more than 85 countries.
- In 1997, Bull earned revenues of \$4217 billion including over 65% outside of France, its country of origin.
- Bull offers a wide range of systems, infrastructure software and I.T. services.
- Bull is a leading developer of smart cards and smart card terminals.
- In distributed management software platforms, Bull is ranked third worldwide.
- In I.T. services, Bull is ranked in Europe as the third largest systems integrator and fifth in maintenance and support services.

Company Description

Group Bull began in 1919, when Frederick Rosing Bull, an engineer at a Norwegian insurance company, invented a counting and sorting machine to automate the processing of the company's actuarial data. In 1931, HW Egli Bull was incorporated in Paris to sell Bull tabulators, and changed its name to Compagnie des Machines Bull in 1933.

In 1983, the French state acquired a majority interest, and in the following year, NEC, Bull and Honeywell signed a long-term cross-licensing agreement for very large mainframes. In 1987, Honeywell Bull Inc was jointly created by Bull (42.5%), Honeywell (42.5%) and NEC (15%), and in 1988, Honeywell Bull was consolidated into Groupe Bull, which increased its share to 65.1%, leaving Honeywell Inc with 19.9% and NEC with 15%.

In 1989, Honeywell Bull changed its name to Bull HN Information Systems (the H is for Honeywell, the N for NEC). Later that year, Groupe Bull purchased Zenith Data Systems, a US-based PC manufacturer. By April 1991, Honeywell had sold all its share in Bull HN to Compagnie des Machines Bull, the parent company. The company is now known as Bull.

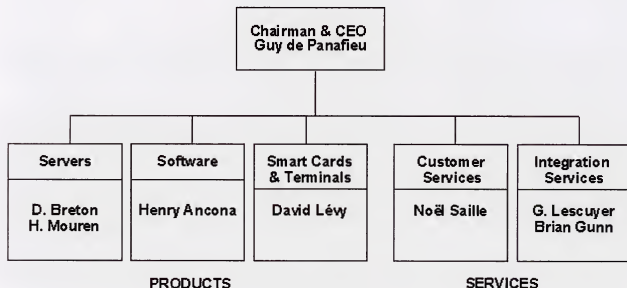
The privatization process was officially started in March 1994 and completed in February 1997. Bull is still partly owned by the French state (17.4%). The majority is held by industrial shareholder partners Motorola (17.4%), NEC (17.4%), France Telecom (17.4%), and Dai Nippon Printing (5.5%). Internal employee shareholding (7%) and financial investors (18%) complete the equity capital structure.

Organization and Structure

Key Executives

Chairman & CEO	Guy de Panafieu
Chief Operating Officer	Alain Couder
Group Marketing	Jacques Reboul/Richard Snook
Group Purchasing	Robert Aydabirian
Strategy, Technology and Partnerships	Géraldine Capdeboscq
Group Research and Development	Gérard Roucairol
Human Resources	Jean Michel Debono (acting)
Finance/Control	Gervais Pellissier/Yves Blanc
Communication	Simon Gillham
MIS/Organization	Jean Michel Debono
Sales: Europe	George McNeil/Alain Zeitoun
Sales: North & South America	Don Zereski
Sales: Asia, Africa, Eastern Europe	Jean Bréchon

Source: Bull

Bull Divisional Structure

Source: Bull

In February 1998, Bull announced a new strategic organization, in line with the Bull 2002 Strategy that the

company is developing over the coming years. The new organization retains the matrix structure of business focused divisions together with customer focused geographical networks.

Five significant changes were made:

- a pan-European sales network that includes France
- the creation of a Software division
- Reinforcement and consolidation in the Integration Services Division, which now includes networking and Internet services
- a focused Server division was created
- the reinforcement of Group Marketing and R&D functions

Three product and two service divisions are in charge of Bull businesses worldwide: Servers; Software; Smart Cards & Terminals, and Integration Services (Systems Integration, Networking & Internet Services, Outsourcing) and Customer Services.

Given the pan-European scope of many Bull customers, the French sales network has been combined with the sales networks of the other European countries, in the Bull Europe network. The three geographic networks are now: Bull Europe; Bull North & South America; and Bull Asia, Africa, Eastern Europe.

Each geographical network has dedicated teams for each division. Both at the worldwide and the national level, the divisions are profit and loss centers for their own particular business activity.

Company Strategy

In response to the changing dynamics of the IT market, Bull undertook a major strategic review in the second half of 1997, for the period 1998-2002. The company realized that it needed to tighten its market focus and to accelerate development of high growth businesses in areas such as the Internet security, high end systems and systems integration.

The «Bull 2002» ambition is straightforward:

- be in the top 3 worldwide for its new products: software (management, security, e-commerce, internet) and smart cards and associated terminals.
- achieve a strong position within focused service activities in Europe
- remain an acknowledged player with first tier partners in the enterprise server market.

To achieve this ambition, Bull has made 3 fundamental strategic choices:

- break with the generalist business model and become a multi-specialist (i.e. specialist in selected domains of excellence)
- develop selected product and services businesses (split approximately 50-50)
- evolve the business portfolio progressively towards new high growth, high margin businesses while focusing the core business of servers and related services

In line with these choices, Bull's business portfolio can be represented in the following matrix:

	Growth	Core
Products	Smart cards & terminals Software: management and	Servers: -GCOS -Open high end (Unix, NT)

	security	Contract manufacturing Printers
Services	Systems integration Network/internet services Selected operational services Help desk services	System services

Source: Bull

Financials

In 1997, Bull earned revenues of \$4.2B, an increase of 5% from 1996, of which the greatest increase was in services (7.2%).

The company has reported profits since 1995, putting an end to several years of losses.

To return to profitability, Bull has reduced staff levels to 21,267 at 1997 year-end, reduced from 44,700 at year-end in 1990. It has also reduced its manufacturing sites from 13 to 5 worldwide.

Bull Five-Year Financial Summary

(\$ Millions, except per share data)

Item	Fiscal Year				
	1997	1996	1995	1994	1993
Revenue	4,216.5	4,016.6	4,566.3	5,124.6	4,839.4
• Percent change from previous year	5.0%	(A) (8.8%)	(8.9%)	7.7%	(6.8%)
Income (loss) from operations:	127.3	133.6	145.4	40.8	(324.1)
• Percent change from previous year	5.0%	(8.8%)	356%	n/a	n/a
Net income (loss)	103.3	64.4	52.4	(113.1)	(585.5)
• Percent change from previous year	60.4%	22.9%	n/a	n/a	n/a

(A) Reflects the sale of Zenith Data Systems Corp. to Packard Bell NEC in April 1996

Source: Bull

Revenue Analysis by Product/Service

Bull - Two-Year Source of Revenue Summary

(\$ Millions)

Product/Service	Fiscal Year	
	1997 Revenue \$	1996 Revenue \$
Servers	2,098.5	2,141.1
Software	62.2	49.7
Smart Cards and Terminals	242.3	183.6
Customer Services	870.2	842.1
Systems Integration	1,307.5	1,190.1
Products sold through services	(364.5)	(390.1)
Total	4,216.5	4,016.6

Geographic Markets

Bull Three-Year Geographic Source of Revenue Summary

(\$ Millions)

Geographic Market	Fiscal Year					
	1997		1996		1995	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Europe (excluding France)			1,767.3	44%	1,689.5	37%
France	1,981.7	47%	1,325.5	33%	1,415.5	31%
North and South America	1,475.8	35%	321.3	8%	821.9	18%
Africa, Asia and Eastern Europe	506.0	12%	160.7	4%	137.0	3%
Direct Sales from divisions and Bull Electronics	253.0	6%	441.8	11%	502.3	11%
Total	4,216.5	100%	4,016.5	100%	4,566.3	100%

Source: Bull

Employees by Division

Servers	30%
Software	2%
Smart Cards and Terminals	2%
Customer Service	24%
Integration Services	33%
Sales network not assigned to divisions	6%
Manufacturing and Group functions	3%
Total	100%

The company currently has 21,267 employees.

Key Products and Services

The Group offers a wide range of I.T. products and services. Bull focuses its R&D investments in its areas of excellence and works in close collaboration with leading partners to complete its offerings

Servers

Bull focuses its server R&D on high-end open systems and GCOS mainframes and offers additional systems through industrial partnerships. As a result, Bull's products span the different levels of information systems architecture: mainframe systems, data centers, departmental servers for distributed applications; and personal computers, the tools for individual productivity and access to networks and the Internet.

Software

This new division brings together all of Bull's software skills, particularly in information systems management and security. The management of this new division has been established in Billerica, Massachusetts, in the United States.

Smart Cards and Terminals

Today, Bull is one of the three world class players in smart cards and payment terminals and one of the few smart card manufacturers to provide smart-card-based IT solutions. Bull combines its unique know-how in microprocessor and readers with IT expertise to deliver customer centric solutions. Bull is also a worldwide leader in terms of security in smart cards. Indeed, Bull obtained in 1996, 1997 and 1998, the first three official security certificates awarded to a smart card, according to the ITSEC standard recommended by the European Commission.

As a pioneer in smart cards, Bull is the third largest manufacturer world wide and number one for the banking industry, where its market share exceeds 30%. Bull is the worldwide leader in electronic purse cards with 27 million cards in use in more than ten countries.

Payment Terminals: Bull, is number one in Europe and fourth in the world and recognized by major international payment networks. It is well established in Southern Europe, Scandinavia and Eastern Europe. In 1997, Bull sold 200,000 terminals, bringing the total number of Bull terminals installed to 650,000 world wide.

Bull has achieved strong penetration in Latin America, where the company has become Visa's first supplier as part of the development program of electronic payment with debit-credit card and of Visa Cash™ electronic purses.

Automated Teller Machines: Bull is one of the main suppliers of banking automatons in Europe and Asia. Number 1 provider in France, Luxembourg and Austria, and number 2 provider in Belgium and Eastern Europe. Bull is also well established in the Republic of China. The ATM revenue has grown at an annual rate of 12% over the last four years (1994-1997).

Customer Services

With 4,700 specialists, international remote support centers, as well as service centers located close to customers in 85 countries, and a dedicated pan-European logistics system, Bull is a recognized player and ranks 5th in the European Customer Services market. Specialist services engineers are fully trained in using advanced solutions and tools, and certified by market-leading partners, including Microsoft, Motorola, Novell.

In addition to providing maintenance and support services for both proprietary and open systems environments, the Customer Services Division has extended its offering with new value-added services, including : parc management, Helpdesk, security and high availability services.

Bull's Customer Services ensures total availability of the information system with:

- implementation services, ranging from configuration, installation and deployment to hot staging, user training and migration services for transferring applications and data between both open and proprietary platforms.
- support and maintenance services, from around-the-clock support 24 hours a day and 7 days a week, to regular preventative maintenance of hardware, operating systems and applications.
- operational services to ensure high performance and availability for critical systems and applications, with a complete range of on-site and remote operational and administration services, including performance analysis, periodic health-checks, benchmarking and tuning.

Bull's tailored services cover three key domains:

- Systems services for Unix, GCOS and NT enterprise server environments
- Desktop services, including the international ServiceDesk offer that Bull launched in 1997 to support customer-facing users in multi-vendor environments, and to help master desktop cost of ownership
- Packaged services around Smart Cards and EFT (Electronic Financial Transaction systems, ATMs, POS-Point of Sale)

Integration Services

The Integration Services Division (ISD) is responsible for Outsourcing, System Integration and Networking services.

Recognizing each customer is different, ISD provides a complete range of services around Bull and partner's best-of-breed technology and integrates solutions that address the specific needs of business sectors.

Bull has thus implemented specialized business units dedicated to Telecommunications, Discrete Manufacturing, Banking and Finance, and Public Sectors to help them take advantage of new technologies, such as security software and networks, the Internet or smart cards. These business units draw on the products and know-how of products divisions. Sectorial specialization combined with technology know-how set Bull apart from service companies.

Alliances

Bull is actively developing a network of partnerships on a global, Europe-wide and country level. Along with increased geographical coverage, this strategy allows the company to gain skill and technology at low cost, optimize its cost structure, and gain market share in specific market segments. Its numerous local and international partners not only help in the building of solutions adapted to the local working environment, but also contribute real added value to local development.

Major strategic partners include NEC, Packard Bell, IBM, Motorola, Dai Nippon Printing, and 3Com.

Although the rapid change in technologies strongly encourages alliances and partnerships in many business sectors, success is never guaranteed. Partnership has been part of Bull's culture for many years. Whether in terms of R&D, manufacturing, or sales, Bull has chosen to focus its investments in its areas of excellence and to partner with the best specialists to complete its offerings and gain market access.

Industrial Partners

Sectors	Partners	Cooperation and projects achieved in 1997
Enterprise servers	NEC	For 25 years, NEC and Bull have shared and coordinated their efforts to develop large enterprise servers. NEC provides Bull with the Zeus system processors. Bull, in turn, developed the new Jupiter server, using Bull's CMOS technology that it sells to NEC.
PowerPC/AIX™ servers	IBM, Motorola	Thanks to its own developments and the partnerships established with IBM and Motorola, Bull has a full line of Power PC/AIX™ systems. In 1997, Bull announced a 5-year renewal of its partnership with IBM.

Intel/NT servers	NEC, Packard-Bell/ NEC	In 1997, Bull introduced the Express 5800 line of servers, designed by NEC and manufactured by Packard Bell NEC and Bull for the European and American markets. Bull cooperates with Packard Bell NEC and NEC to meet the needs of the European market. This line was completed in February, 1998, by the HV 8000 system which achieved a record performance of 14,900 transactions per minute.
Smart cards and payment terminals	NEC, DNP Motorola SGS-Thomson	A pioneer in the smart card, Bull has implemented a partnership strategy aimed at expanding its world leadership. The Group created a joint venture in Japan with DNP, the world printing leader. With Motorola, Bull is working on security and on a new card generation, both contact and contactless. In 1997, it announced with NEC the development of a low cost smart card used in customer loyalty applications.
OpenMaster	France Télécom	With OpenMaster, Bull has a series of administration tools whose technological advance is widely recognized by the experts. The TMN version (Telecommunications Management Network) of this package was developed within the framework of a partnership with France Télécom. In 1997, OpenMaster became the reference platform for many operators such as Telenor, Japan Telecom, Deutsche Telekom, France Télécom, SITA, ICL.

Competition

Bull competes with other hardware vendors and those service providers with strong technology skills. Its main competitors are IBM, Digital and Hewlett-Packard.

Some large and medium-sized services companies, such as CGS, EDS and Logica, can be both partners and competitors on large systems integration projects.

Assessment

Bull has found its course over the last two years, recovering from the wrenching changes of privatization begun in 1994. The desire to increase market share worldwide, which translates to a requirement for significant gains in North America, is similar to goals set at Siemens in Europe and NEC (a major Bull shareholder) in Japan. Bull has gained significant electronic commerce experience through its work with smart cards. If Bull can manage to reposition their smart card expertise as a more generalized electronic commerce capability, it would be an important first step toward market acceptance in North America.

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Cadence Design Systems, Inc.



UPDATED:
03/30/1998

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U.S.

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Fax:
(408) 943-0513

Company Web Site:
<http://www.cadence.com>

Summary Info

President/CEO:	Jack Harding
Status:	Public
Employees:	3,750 (01/1998)
Revenue:	\$ 915.8 mil
Year End	Jan-1998

Key Points

- Cadence Design Systems has evolved from an electronic design automation tools provider to a complete solutions provider for electronic product realization.
- The company is committed to delivering consulting and design services to accelerate the product development cycle, including complex systems integration and reengineering of the product development process.
- Cadence's solution approach is based on its traditional strength of high-performance software tools augmented with an expanding set of consulting and design services.
- Cadence continues to expand its services capacity through merger and acquisition, a global recruiting effort, and innovative projects such as its November 1997 agreement with the Government of Scotland.
- The emerging trend toward "system on a chip" (SOC) in electronics is the key underpinning of Cadence's tools and services strategy.

Company Description

Cadence develops, markets, and supports electronic design automation (EDA) software tools that automate, enhance, and accelerate the design and verification of integrated circuits (ICs) and electronic systems.

- The company combines its software with professional services to help optimize its customers' product development processes.
- Cadence's software and services are used by companies worldwide to design semiconductors, computer systems and peripherals, telecommunications and networking equipment, mobile/wireless devices, automotive components, consumer products, and other advanced electronics.

Structure and Operations

Cadence headquarters are in San Jose (CA). The company has sales offices, design centers and research facilities around the world.

Development and marketing of EDA software is concentrated in five specialized business units:

- Deep Submicron: to facilitate the design of integrated circuits manufactured below 0.5-micron
- Custom IC: focuses on the custom layout and physical verification of system-on-a-chip (SOC) designs
- Performance Engineering: tools for high-speed board design
- Logic Design and Verification: High-performance design and simulation checking for complex designs
- Alta: High-level systems design software to speed product realization

Cadence's Professional Services, providing electronic design and consulting services to customers creating everything from complex semiconductors to complete electronic systems, fall into four broad categories:

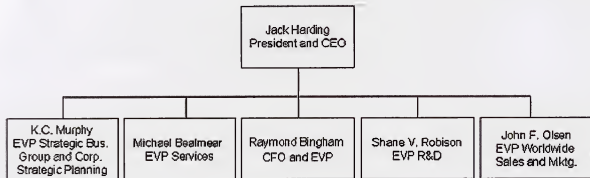
- Professional Consulting: works with customers to increase design efficiencies within their organizations
- Design Services: product realization services for IC and electronic system design
- Communications Services: product realization services specific to the needs of customers in the areas of wired and wireless communications
- Multimedia Services: product realization services for multimedia customers with a special emphasis on digital imaging

Design Factory Network

The Cadence Design Factory (sm) Network is a global resource of 18 Cadence Design Centers staffed by seasoned designers sharing their expertise to meet customers' needs. Cadence Design Centers throughout the world work together to assist customers with their toughest electronic design challenges—everything from crafting the latest microprocessor to reducing the manufacturing cost of a printed circuit board.

The network currently has sites in: Rancho Bernardo, CA; Columbia, MD; Roseville, MN; Tredyffrin, PA; Rochester, NY; San Jose, CA; Jackson, MS; Santa Barbara, CA; Ottawa, Ontario; Manchester, Cambridge and Bracknell, England; Milan, Italy; Cary, NC; Portland, OR; Dublin, Ireland; Livingston, Scotland; Paris, France; Shin Yokohama, Japan.

Cadence Design Systems, Inc. Organization Chart



Source: Cadence Design Systems, Inc.

R&D

Cadence employs more than 1,000 Research & Development software engineers in San Jose, Berkeley, Sunnyvale, and San Diego, CA; Chelmsford, MA.; Research Triangle Park, NC; Edinburgh, Scotland; Rome, Italy; Noida, India; and Hsin-Chu, Taiwan, R.O.C.

Company Strategy

Cadence is committed to being a complete solutions provider to its customers, including providing software tools, strong maintenance/customer support, and customized solutions.

The company's strategy for growth includes:

- Continuing to extend its EDA software technology lead
- Combining its software with an expert team of experienced support, design, and process service professionals to optimize its customers' product development process
- Offering outsourcing of customers' electronic design work at both the chip and complete system level

Financials

Cadence's 1997 revenue reached a record \$916 million, a 33% increase over 1996 revenue of \$741 million. Net income rose 584% from 29 million in 1996 to \$169 million in 1997.

Cadence management attributes 1997 revenue growth to the following:

- Product revenue increased 28% in 1997, reflecting increased market acceptance of Cadence's products for complex design, deep sub-micron IC and system-on-a-chip design. This was exemplified by increased sales of its place & route, and high-level design software.
- Service revenue increased 42% during 1997 due to a significant demand for Cadence's services that provide a range of solutions for customers' product development needs.

A five-year financial summary follows.

Cadence Design Systems, Inc.

Five-Year Financial Summary

(\$ Millions, except per share data)

Item	Fiscal Year				
	1997	1996	1995	1994	1993
Revenue	\$915.8	\$741.5	\$548.4	\$429.1	\$368.6
• Percent change from previous year	33%	(a) 35%	28%	16%	(12%)
Income (loss) before taxes	\$234.0	\$90.5	\$135.1	\$48.9	\$(12.8)
• Percent change from previous year	259%	(49%)	176%	(b) 482%	(c) (119%)
Net income (loss)	\$169.5	\$29.0	\$97.3	\$36.6	\$(12.8)
• Percent change from previous year	584%	(335%)	165%	386%	(123%)
Earnings (loss) per share	\$0.87	\$0.19	\$1.57	\$0.56	\$(0.20)
• Percent change from previous year	458%	(826%)	180%	380%	(125%)

(a) Includes \$50.9m in revenue from Integrated Measurement Systems, Inc. Cadence Design Systems held 57% of ISM stock until the first quarter of 1997, when ownership was decreased to 37% through a secondary stock offering. ISM revenue is not included in 1997 results.

(b) Includes unusual items (charges) of \$14.7 million for write-offs of in-process research and development and settlements of litigation.

(c) Includes unusual items (charges) of \$19.7 million for losses related to the disposition of the Automated Systems division and restructuring costs in the areas of sales, operations, and administration.

Source: Cadence Design Systems, Inc.

Research and development expenses were \$140.4 million (15% of revenue) in 1997, \$115.3 million (16% of revenue) in 1996, and \$88.6 million (16% of revenue) in 1995.

Marketing and sales expenses were \$257.9 million (28% of revenue) in 1997, \$226.5 million (30% of revenue) in 1996, and \$185 million (43% of revenue) in 1995.

General and administrative expenses were \$56.5 million (6% of revenue) in 1997, \$54.3 million (7% of revenue) in 1994, and \$40.4 million (7% of revenue) in 1996.

Source of Revenue by Product/Service

Approximately 82% of Cadence's 1997 revenue was derived from software products and associated maintenance services. The remaining 18% of revenue was derived from consulting professional services, training, and circuit design.

A three-year source of revenue summary follows.

Cadence Design Systems, Inc.

Three-Year Source of Revenue Summary

(\$ Millions)

Item	Fiscal Year					
	1997		1996		1995	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
	\$		\$		\$	
Software products	\$530.5	58%	\$414.0	56%	\$292.2	53%
Maintenance	224.5	24%	212.8	29%	190.3	35%
Professional services	160.9	18%	114.6	15%	65.9	12%
Total	\$915.9	100%	\$741.4	100%	\$548.4	100%

Source: Cadence Design Systems, Inc.

Market Financials

One hundred percent of Cadence's revenue is derived from the discrete manufacturing industry.

Cadence customers and target markets include computer manufacturers, consumer electronics companies, industrial electronics companies, semiconductor manufacturers, ASIC foundries, and telecommunications companies.

Corporate Background

Cadence Design Systems, Inc. was created in 1988 through the merger of ECAD, Inc. and SDA Systems, two EDA pioneers. Through innovative product development, strategic partnerships, and highly successful business mergers, Cadence has become the industry's leading supplier of EDA software technology and services. Key acquisitions in Cadence's history include Tangent Systems, Inc. in 1989, which brought advanced IC place-and-route technology to the company; and Gateway Design Automation in 1989, the leading supplier of logic simulation technology with its Verilog-XL® product. In 1991, Cadence, merged with Valid Logic Systems, a market leader in printed circuit board design tools. In 1994 Cadence combined its acquisitions of Redwood Design Automation and Comdisco Systems, Inc. to form the Cadence® Alta™ high-level design system. Alta technology focuses on tools for applications such as wireless communications, multimedia, and advanced computing systems.

In 1997 Cadence completed the acquisition of two companies focused on the emerging "system-on-a-chip" market — High Level Design Systems (HLDS) and Cooper & Chyan Technology (CCT). The two offer critical technology needed for placing complete system-level functionality onto a single silicon chip.

Cadence's Professional Services Group, launched in 1993, was the industry's first consulting services organization dedicated to working with customers to refine their product development environments. In early

1995, the Company signed a five-year agreement with Unisys Corporation to assume responsibility for Unisys' chip design operations. Part of the landmark outsourcing agreement included more than 150 chip designers who are now Cadence employees based in Rancho Bernardo, California. That site anchors an expanding network bolstered by additional outsourcing deals and acquisitions of 18 design centers around the world. In 1997, the Cadence services business was \$161 million. Companies large and small have embraced the concept, and include Motorola, Lucent, Toshiba, Sony, and many others. Cadence continues to expand its services operations through merger and acquisition and worldwide recruiting.

In 1997, Cadence announced its plans to open its largest design services operation, a planned 2000-person facility in Livingston, Scotland. The investment is part of a multi-faceted initiative by Cadence and the Scottish government to address all the requirements of system-on-a-chip design.

Further evidence of Cadence's commitment to growing the system-on-a-chip industry was its active role in the formation of the Virtual Socket Interface (VSI) Alliance in 1996. A working consortium of more than 100 well-known high-tech companies, VSI is crafting a standard that will allow the mixing and matching of intellectual property blocks on silicon produced by multiple manufacturers. The VSI standard will permit the innovative reuse of electronic designs that will quicken the time-to-market for better, faster, and cheaper products.

In 1993, the establishment of Cadence Berkeley Labs created a unique, advanced research group that is separate from the Company's core engineering organization. The team of PhDs works with customers and academia to research leading-edge EDA technology. Since its founding, Cadence Berkeley Labs has been responsible for several key pieces of technology that have been integrated into Cadence's product line. International expansion of the Cadence Labs concept happened in 1996 with a network of research sites, anchored by a state-of-the-art operation in Rome.

Key Products and Services

EDA tools assist with the two major functions of the electronic product development cycle: electrical design, often referred to as CAE (computer-aided engineering), and physical design, often referred to as computer-aided design (CAD).

Cadence's line of integrated EDA software tools are used to analyze, simulate, implement, and verify electronic designs.

- By using these tools to automate significant parts of the design process, electronic engineers can focus their time on developing the intellectual content of the integrated circuit or electronic system.
- In addition, design automation tools let design architects and engineers build abstract models of chips, simulate their behavior, and analyze their physical attributes for acceptable performance. EDA also ensures that the product design can be manufactured and can work as intended.

Cadence offers the following EDA products:

- CAE products for logic simulation and design planning
- IC design products for custom layout, automatic place and route, and verification
- PCB design
- High-level design tools for architectural-level analysis and verification

Cadence's software products are summarized in the exhibit on the following page.

Support Services

Cadence's Applications Services are intended to maximize productivity with Cadence software applications and transfer knowledge to design teams in new methodologies and technologies. Categories of services include:

- Software installation
- Quick start
- Application training

- Customization
- Technology services

Cadence's Professional Services organization offers technical and consulting experts to provide:

- Design methodology and process reviews to determine how to compress design cycles, reduce iterations, reduce costs, or enable new design processes
- Library and data management consulting to facilitate design efficiency, re-use, enabling of variant design styles, and support of enterprise-wide data and release management
- Design services, including complete or partial design responsibility from specification to tape-out, as well as turnkey IC design services through Cadence's design group in San Diego

Marketing and Sales

Approximately 29% of Cadence's total work force is engaged in field sales and sales support.

In North America, Cadence uses a direct sales force consisting of sales people and applications engineers to license its products. The selling cycle is generally long, with three to six months being typical. Activities during this sales cycle typically consist of a technical presentation, a product demonstration, a design benchmark, and often, an on-site customer evaluation of Cadence software.

In Europe and Asia, Cadence markets and supports its products primarily through 15 majority-owned subsidiaries. Cadence also serves its international customers through distributors in various countries throughout Europe and the Asia/Pacific region.

Cadence licenses its IC products in Japan primarily through a distributor—Innotech Corporation.

All of Cadence's services are offered directly from the company through its global services organization.

Alliances

Through Cadence's Connections Program, the company cooperates with other design automation vendors so its customers can more easily integrate Cadence products and technologies with other companies' products and technologies. To date, more than 100 companies have integrated their tools with Cadence's software.

Cadence has also taken the lead in the EDA industry in forming reciprocal access agreements with its tool competitors. Driven by customer requirements in its services business engagements, Cadence has rights to buy and use software from all of its major competitors.

Cadence has working relationships with a number of semiconductor manufacturers and electronic system companies based on a business partnership model to ensure that research and development activities and finished products meet customers' needs.

Cadence supports EDA research by sharing its design automation technology and expertise with more than 500 universities worldwide.

Exhibit

Cadence Software Products

Product	Design Process
CAE Products	
Verilog XL™, NC-Verilog™ Leapfrog™ VHDL Model Import	Verilog HDL logic simulator VHDL simulator For importing a textual description block of Verilog or VHDL

INCA™ Silicon Synthesis™ SiliconQuest™	Architecture for next-generation mixed-language solutions Optimizes logic based on actual physical implementation Advanced high-level chip planning environment
IC Design Products	
Virtuoso™ products Ensemble™ products - Gate Ensemble™ - Cell Ensemble™ and Cell3™ - Block Ensemble™ - Silicon Ensemble™ - QPlace™ Cadence Design Planner Dracula® product Diva® IC Craftsman™ Vampire™	Custom IC layout and library development Place and route solutions for gate, cell, block, and mixed designs Place and route engine Cell-based routing Block-based routing Routing up designs with a mix of cell and gate-based approaches Placement system Logic, physical and top-down tools speed DSM IC development Physical verification Interactive verification Shape-based router for system-on-a-chip assembly Next-generation verification
System Design Products	
Allegro™ product family - DF/Signoise™ - DF/Thermax™ - DF/Viable™ - DF/EMControl™ BoardQuest™ The Analog Artist™ series - Spectre™ HDL - Spectre™ RF - Analog Workbench™	Layout of standard PCB, hybrid, MCM, and advanced components Signal Integrity Thermal Reliability Electromagnetic compliance High-speed system design planning Simulation, layout and verification tools for chip design Analog behavioral simul. system for analog and mixed-signal appl. Simulation software for design of radio frequency applications Analog system and board-level design
Electronic Systems Design Automation Products	
Signal Processing Workbench® EnWave™, EnVision™ Visual Architect	Top-down design automation software Application-specific system-level design suites Application-specific behavioral synthesis

Competitors

Major competitors in the \$2.5 billion EDA industry include Mentor Graphics, Synopsys, and Zuken-Redac.

Assessment

Cadence's strengths include:

- Large installed base of users
- Leadership position in offering a total solution, results-oriented approach to electronic design
- Strong portfolio of software tools and commitment to research and development

Challenges include:

- Managing the company's rapid growth
- Maintaining technological edge with software product line
- Continuing to align the industry with its new business model

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Cambridge Technology Partners, Inc.



UPDATED:
06/01/1996

Headquarters

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U.S.

Phone:
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Fax:
(617) 374-8300

Company Web Site:
<http://www.ctp.com>

Summary Info

President/CEO:	James K. Sims
Status:	Public
Employees:	3,200 (12/1997)
Revenue:	\$ 406.7 mil
Year End	Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.

Key Points

- Cambridge Technology Partners (Cambridge) provides systems integration and professional services to enterprises using or migrating to open systems environments using client/server architectures.
- In the second half of 1995, Cambridge strengthened its service offering through the acquisitions of The Systems Consulting Group, Inc. (SCG) and Axiom Management Consulting, Inc. SCG and Axiom provide Cambridge additional expertise in packaged software evaluation and implementation, and business process redesign, respectively.
- During 1995, European revenues increased 142%, representing 22% of total revenue for the year. Cambridge opened offices in Frankfurt (Germany), Oslo (Norway), and Dublin (Ireland). The company is working to establish offices in Latin America and Southeast Asia and will continue to expand into major cities in North America and Europe in 1996.
- On May 15, 1996, Cambridge announced a 3-for-1 stock split.

Company Description

Cambridge is an international systems integration and professional services firm that provides software development and consulting services to organizations with large-scale information processing and distribution needs that are using or migrating to open systems computing environments and client/server technology.

- Services are provided at the enterprise-wide, specific business process, and application software levels of an organization.
- Upon the completion of consulting services, Cambridge designs, develops, and implements one or more strategic software applications, which may include custom and third-party packaged software, and then rolls out such applications to the organization's end users. These software applications are designed to achieve a competitive advantage, enhance the efficiency and functionality of specific business processes and support financial goals of the client.
- Cambridge may also assist clients in providing end-user training for managing the organizational changes that accompany the roll-out of new applications and the assimilation of such applications into the production environment.
- Cambridge provides network analysis, design, and deployment services to assist its clients in implementing applications in an open systems environment.
- Cambridge also provides packaged software evaluation and implementation as independent service offerings.
- While the early stages of a client engagement may result in a relatively small amount of revenue, a client project that involves the design and development of a custom strategic software application typically results in fees ranging from \$1 million to \$3 million.
- Cambridge has performed services for clients in a range of industries. Industrial companies and clients in the aerospace, insurance, financial services, telecommunications, and consumer products industries, as well as state and local governmental agencies, have historically provided the greatest source of revenue.

Cambridge was formed in March 1991 under the common control of Safeguard Scientifics, Inc., Radnor Venture Partners, and Cambridge Technology Group, Inc. (CTG) to continue to conduct the systems integration and software development business of CTG.

- In April 1993, Cambridge completed an initial public offering of 2.6 million shares of common stock, of which 800,000

shares were sold by the company and the balance by Safeguard Scientifics, Inc. Net proceeds to Cambridge from the sale were approximately \$3.7 million.

- In March 1994, Cambridge completed a second public offering of 2.5 million shares of common stock, of which 500,000 shares were sold by the company and the remainder by certain stockholders. Net proceeds to the company of \$6.9 million will be used for general corporate purposes, including working capital to support the expansion of its North American and international operations and to fund capital expenditures and possible acquisitions.

Cambridge's current principal stockholder is Safeguard Scientifics, which owns 22.9% of Cambridge's shares.

Organization and Structure

Cambridge's key executives are listed below:

Cambridge Key Executives

Name	Title
James K. Sims	President and CEO
Robert L. Gett	President Cambridge Technology Partners (North America)
Christopher H. Greendale	SVP Marketing
Thomas G. Richardson	SVP Worldwide Domains
William A. Seibel	SVP International Operations
Michael A. Korchinsky	President of Axiom
Arthur M. Toscanini	SVP Finance, CFO
Susan J. Loker	SVP Human Resources

Cambridge is headquartered in Cambridge (MA).

U.S. regional sales offices are in Atlanta (GA), Dallas (TX), Detroit (MI), and Seattle (WA). Additional sales and operations facilities are in the Chicago, Los Angeles, Miami, New York, and San Francisco metropolitan areas and in Lansing (MI).

Cambridge Scandinavia (formerly IOS Group AB) provides services in Sweden, with offices in Linköping, Stockholm, and Malmö. Other European offices are in Amsterdam (the Netherlands), Dublin (Ireland), London (England), Frankfurt (Germany), and Oslo (Norway).

Cambridge's Network Services Group, established in 1994, provides network design, analysis, and planning services to build the infrastructure clients need to support a distributed computing environment. In addition, The Management Lab was established during 1994 to provide clients with research and educational services.

Axiom Management Consulting, Inc. is a wholly owned subsidiary of Cambridge acquired in October 1995 that provides management consulting services, focusing on business process redesign.

Company Strategy

Cambridge's objective is to be the leading provider of enterprise-wide information technology (IT) solutions for organizations with large-scale information processing and distribution needs that are using or migrating to open systems computing environments.

The company's strategy for achieving this goal includes the following elements:

- *Structuring client projects at fixed prices and fixed timetables*-- Cambridge helps clients align desired IT solutions and technology investment by using rapid software development techniques to deliver IT solutions on a fixed-price and fixed-timetable basis. At the commencement of a project engagement, Cambridge and its clients agree on the nature of project deliverables, a price, and a timetable for the project. Cambridge's goal is to keep individual application development projects under nine months in duration to increase the client's ability to use the IT solution to maximize competitive advantage.

Cambridge continues to develop a library of object-oriented software components to be reused in software application development in order to further improve the efficiency and quality of the application development process.

- *Developing strong partnering relationships with clients--* Cambridge's interactive approach to problem solving and application software development involves consensus-building among a client's executives, computer system end users, and MIS professionals to strengthen client relationships. This approach also enables Cambridge to design, develop, and implement IT solutions that allow the client to achieve competitive advantage, enhance the efficiency and functionality of specific business processes, and support financial goals. Whether developing an open enterprise plan for implementing an enterprise-wide migration to an open computing environment or developing single or multiple strategic software applications, Cambridge seeks to establish itself as the client's preferred source for strategic IT solutions.

The company also extends its partnering relationships with clients beyond specific engagements by offering educational and training programs through its interactive management lab and CIO Forums and other information-sharing programs that provide clients with opportunities to exchange ideas with their peers as well as learn about new information technologies and client/server trends.

- *Facilitating migration to flexible computing environments--* Cambridge's application development process enables clients to develop an open computing environment incrementally by implementing strategic software applications that can operate across existing hardware platforms and leverage existing information processing infrastructure. The company's approach to implementing IT solutions in most cases involves the introduction or further implementation of client/server architectures. The migration to open computing environments also provides opportunities to rebuild or redesign existing host-based software applications. Clients can also take advantage of Internet-based solutions.
- *Providing additional service offerings--* Through the acquisitions of SCG and Axiom, Cambridge has extended its service offerings to include packaged software evaluation and implementation and business process redesign consulting. Cambridge believes that combining business process redesign consulting with IT solutions will give it a competitive advantage by providing a source of software development projects. Cambridge will continue to provide additional services to satisfy the IT needs of its clients.
- *Capitalizing on domain expertise--* As a result of Cambridge's information technology consulting and development activities, the company has developed strategic expertise in certain client applications. The areas of expertise, or "domains," include customer management systems, core applications (financial, payroll, human resources, and manufacturing/distribution), business intelligence/data warehousing, remote work force automation, and training services. Cambridge intends to capitalize on its experience in these domains and has appointed Tom Richardson (formerly the president of SCG) to serve as Senior Vice President of Worldwide Domains with responsibility for identifying and developing domain expertise within the company.
- *Market expansion--* Cambridge believes that a strong domestic presence enhances competitiveness. The company plans to continue to expand domestically through the establishment of additional regional sales offices and operations facilities in major North American cities.

To capitalize on market opportunities in Europe, Cambridge has established sales offices in Germany, Ireland, and Norway, as well as sales and operations facilities in England, Sweden, and the Netherlands. Cambridge also plans to continue to increase its international presence in Europe and create a presence in Southeast Asia and Latin America by establishing sales offices and operations facilities, and joint ventures.

- *The Internet* - Cambridge's Internet initiative, announced in February 1996, is designed to enable new business processes for distributed IT environments and leverages Cambridge's expertise in integrating external Web sites with strategic business applications built on internal networks. Cambridge is forming various partnerships with Netscape (Netscape-authorized training centers), Sun (Java training), Connect (servers), and Raptor Systems (firewalls).

KnowledgeShare, introduced in late 1995, is Cambridge's technology solution to help clients capture, apply, and share internal knowledge using the Internet and the World Wide Web. It consists of an Intranet framework, a World Wide Web home page, a flexible knowledge repository, and a training workshop.

Financials

In the discussion that follows, financials have been restated to reflect the pooling-of-interests acquisitions of The Systems Consulting Group, Inc. and Axiom Management Consulting during 1995.

Cambridge's 1995 revenue reached \$132.4 million, a 59% increase over 1994 revenue of \$83.5 million.

- *Pro forma* net income for 1995 was \$12.5 million and includes business combination costs of \$1.3 million (\$0.05 per share) related to the acquisitions of SCG and Axiom, partially offset by a gain of \$909,000 (\$0.03 per share) related to the sale of Cambridge's interest in AdValue.
- A five-year financial summary is shown on the following page.

Cambridge management attributes 1995 revenue increases to an increase in the volume of services delivered to new clients, as

well as leveraging the client base by undertaking additional projects for existing clients.

- North American revenue increased 45% to \$103.8 million, reflecting a 42% revenue growth of Cambridge's newly acquired companies (SCG and Axiom) in 1995 compared to 1994.
- European revenue accounted for \$28.6 million, or 22% of consolidated revenue in 1995, up from \$11.8 million (14% of revenue) for the same period in 1994.

Cambridge's process for projects is divided into six stages, beginning at one of two stages, one being business renewal and the other being a scope. The commencement of a particular stage of a project does not necessarily result in the commencement of any other stage. Therefore, the number of clients is not necessarily a reliable measure of net revenue.

- In 1995, Cambridge's twenty largest clients accounted for approximately 47% of revenue, compared to 54% and 62% in 1994 and 1993, respectively.
- Cambridge's revenue concentration by client continues to decrease, reflecting Cambridge's client base growth in both North America and Europe.

Cambridge Technology Partners, Inc.
Five-Year Financial Summary
(\$ Millions, except per share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue					
• Percent change from previous year	\$132.4 59%	\$83.5 67%	\$50.0 56%	\$32.1 68%	\$19.1 N/A
Income before taxes					
• Percent change from previous year	\$20.8 73%	\$12.0 98%	\$6.1 92%	\$3.2 *	\$0.2 N/A
Pro forma net income (loss)					
• Percent change from previous year	\$12.5 (a) 77%	\$7.0 46%	\$4.8 (b) 169%	\$1.8 *	\$(0.1) N/A
Earnings (loss) per share					
• Percent change from previous year	\$0.74 (a) 61%	\$0.46 35%	\$0.34 (b) 143%	\$0.14 *	\$(0.01) N/A

* Percent change exceeds 1,000%.

(a) Includes business combination costs of \$1.3 million (\$0.05 per share) related to the acquisition of SCG and Axiom and a gain of \$909,000 (\$0.03 per share) related to the sale of Cambridge's interest in AdValue.

(b) Includes a one-time, noncash benefit of \$1.2 million (\$0.08 per share) for the cumulative effect of a change in accounting for income taxes.

Interim Results

Revenue for the three months ending March 31, 1996 reached \$39.6 million, a 46% increase over \$27.2 million for the same period in 1995. Net income for the quarter increased 74% to \$4.1 million, compared to \$2.4 million for the same period a year ago.

Revenue Analysis by Product/Service

One hundred percent of Cambridge's 1995 revenue was derived from systems integration/professional services.

Market Financials

Cambridge markets its services to a range of industries. Clients primarily include organizations with large scale information processing and distribution needs that are using or migrating to open systems computing environments.

Geographic Markets

Approximately 78% of Cambridge's 1995 revenue was derived from North America and 22% from Europe. A three-year financial summary is shown on the following page.

Cambridge Technology Partners, Inc. Three-Year Geographic Financial Summary (\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	\$	Percent of Total	\$	Percent of Total	\$	Percent of Total
Revenue						
- North America	\$103.8	78%	\$71.7	86%	\$49.8	100%
- Europe	28.6	22%	11.8	14%	0.2	—%
	\$132.4	100%	\$83.5	100%	\$50.0	100%
Income (loss) from operations						
- North America	\$17.6	91%	\$11.7	100%	\$6.6	108%
- Europe	1.7	9%	0.1	—%	(0.5)	(8%)
	\$19.3	100%	\$11.8	100%	\$6.1	100%

Acquisitions

In October 1995, Cambridge acquired Axiom Management Consulting, Inc. of San Francisco (CA) for approximately 336,000 shares of Cambridge common stock. The acquisition was accounted for as a pooling of interests.

- Axiom, formed in 1988, is a management consulting firm that specializes in business process renewal services primarily for Fortune 1000 companies. Business Renewal™ is Axiom's proprietary methodology for implementing strategy-driven business change.
- At the time of the acquisition, Axiom had approximately 100 employees at its offices in San Francisco, Atlanta, Chicago, Dallas, Los Angeles, and New York.
- The acquisition enhances Cambridge's business process consulting services by providing critical mass in the management consulting area.
- Axiom now operates as a wholly owned subsidiary of Cambridge.

In August 1995, Cambridge acquired The Systems Consulting Group, Inc. (SCG) for approximately 758,000 shares of Cambridge common stock. The acquisition was accounted for as a pooling of interests.

- SCG, founded in 1988 and based in Miami (FL), focuses on the evaluation and implementation of software packages for financial reporting and consolidation, human resources/payroll, remote work force automation, manufacturing, and retail distribution. SCG also specializes in emerging technologies and techniques, such as imaging, cooperative processing, and wireless communications.
- SCG, with 1994 revenue of \$12.2 million, had approximately 200 employees at the time of the acquisition and offices in Miami and Chicago.
- SCG's client base included companies such as Office Depot, Ryder Systems, Blockbuster Entertainment, W.R. Grace, and NYNEX.
- The acquisition integrates SCG's packaged software evaluation and implementation practice with Cambridge's rapid application development and deployment of client/server applications. SCG also strengthens Cambridge's presence in the Southeast and Midwest markets in the U.S. and provides the company with a competitive advantage as it expands into Latin America.
- Effective January 1, 1996, the operations of SCG were merged into Cambridge.

In February 1994, Cambridge acquired IOS Group AB of Sweden for 425,000 shares of Cambridge common stock (valued on the date of the acquisition at \$4.2 million) and \$1,000 in cash. The acquisition was accounted for as a purchase.

- IOS Group provides open systems IT consulting and software development services in an enterprise-wide, client/server environment.
- IOS Group had 61 employees at the time of the acquisition and annual revenue of approximately \$6 million.
- Subsequent to the acquisition, IOS Group was renamed Cambridge Scandinavia.

Divestitures

In May 1995, Cambridge sold its interest in AdValue Media Technologies, Inc. for \$909,000. Cambridge had a 6.3% investment interest in AdValue, which was formed in 1991 to develop, test, and market a centralized spot advertising computer software package.

Employees

As of December 31, 1995, Cambridge had 1,062 employees, up from 518 employees as of the end of 1994.

As of January 31, 1996, Cambridge had a total staff of 1,077 employees, including 783 employees in North America and 294 employees in Europe.

Employees are segmented as follows:

Marketing and sales	57
Application developers and systems consultants	672
Project managers	152
Client managers	62
Vice presidents	37
Senior executives	8
Administrative staff	89
	<u>1,077</u>

The company currently has approximately 1,300 employees.

Key Products and Services

Cambridge provides information technology consulting and software development services and evaluation services designed to achieve a competitive advantage, enhance the efficiency and functionality of specific business processes, and support financial goals.

- To achieve these objectives, Cambridge uses its rapid development methodology to take a client through design, development, and roll-out of a significant strategic business application in approximately nine months, a timeframe Cambridge believes to be significantly shorter than those of its competitors.
- Cambridge's custom software design and development activities have accounted for most of the company's revenues. These fees typically range from \$750,000 to \$2.5 million, depending on the type of application and the anticipated complexity of the development process.

Consulting

Cambridge provides consulting services to address information technology issues occurring at three organizational levels--the enterprise-wide level, the specific business process level, and the application level.

- With respect to each of these consulting services, Cambridge has developed a methodology for completing consulting projects rapidly.

- Clients can use consulting services in connection with either an initial or a follow-on assignment.

Rapid Business Renewal is a proprietary methodology developed by Axiom for evaluating strategic business change encompassing all dimensions of a client's operations, including processes, organizational structure, technology, and people.

- A client can begin work with Axiom at this stage to determine which of its business processes should be examined.
- A project starts by establishing a strategic context or road map for achieving desired performance levels within a selected business unit. Then Axiom assists clients to develop future operating models and prototypes in the innovation phase of the project. These models are then reviewed in light of real-world, physical boundaries and provide the basis for implementation of a renewed business process.

Scope is the second consulting option for clients. A scope is a one- or two-week process for identifying strategic applications most likely to maximize a client's return on IT investment, achieve a competitive advantage, enhance the efficiency and functionality of specific business processes, or support financial goals.

- Clients can prioritize the development process based on the results of scoping and may choose to develop their application incrementally in order to speed up their realization of competitive advantage and productivity and cost-reducing benefits.
- Cambridge also prepares a detailed plan describing the steps necessary to complete the development cycle.

Rapid Solutions Workshop (RSW)

RSW is a three-week process involving a team of Cambridge's project managers, analysts, and software developers, as well as a team of the client's executives, information system end users, and MIS professionals.

- The first two weeks of the process are spent in a cooperative effort with the client to identify the scope of the application, to design the features of a prototype, and to build a business case supporting the application.
- During the final week of the process, the teams participate in an intensive workshop process held at one of Cambridge's facilities (Cambridge, Chicago, Lansing, Los Angeles, New York, San Francisco, the U.K., the Netherlands, or Sweden). Together, the client and Cambridge teams develop a functional prototype of the chosen strategic application, define required functionality based on the jointly created business case, and resolve key business and technical implementation issues.
- The RSW concludes with a presentation of the application prototype by the client team to the client's executives. The inclusive nature of the RSW, coupled with the technical proof of the application concept offered by a prototype demonstration, builds consensus for the chosen application and adds momentum to the process.
- The RSW process can also be used by clients to build consensus for the implementation of a redesigned business process or a third-party software package.

Design

Application design includes a functional and technical blueprint of the software application to be developed.

To implement application design, Cambridge personnel identify all potential business processes and their related functions, prioritize these processes, identify end-user requirements, and detail the application architecture.

This process is typically accomplished in six to eight weeks, a timeframe Cambridge believes is significantly shorter than for comparable services provided by its competitors.

At the end of this period, Cambridge delivers a fixed-price, fixed-timetable plan for developing and implementing the application.

Development

Development services include development of the custom software necessary to operate the application, systems integration—including integration of the application into the existing information processing architecture and the coordination of hardware requirements and network configuration—and testing and implementation of the application.

Cambridge's approach to the implementation of client/server architecture is based on a three-tiered architecture that positions an open systems hardware platform (typically a UNIX-based computer) as a processing link between the user interface or "client" and the host system or "server" to be accessed.

Cambridge also uses open standards-based software tools and reusable objects that can help shorten the application development cycle.

Cambridge divides the development process into sub-projects, such as user interface, functionality, and data modules, each of which is typically implemented in parallel by distinct teams.

Cambridge continues to develop a library of object-oriented software components that are reused in software application development in order to further improve the efficiency and quality of the application development process.

Roll-Out

Upon completion of the software development process, Cambridge assists its clients in the roll-out of the application into the workplace and its assimilation into the production environment. Cambridge also assists its clients in managing the organizational changes that accompany roll-out of the application.

Support

Cambridge offers various optional services to support the developed software application, including application and tools support, technical consulting, project management support, and systems training for client personnel.

- These services can be contracted for individually or as part of a package with development and roll-out services.
- Support services are available for periods ranging from three months to one year. Cambridge charges a support fee based on a *per-diem* rate.

Empowerment

The goal of these services is to enhance client independence through training in the technologies and methods used to develop and maintain open systems applications. These services range from formal training in the skill-sets required to develop additional software applications to administer and support the developed software and use the applicable software tools, to informal hands-on experience and direct interaction with Cambridge personnel throughout the application development process.

Network Services

Cambridge's Network Services Group provides computer network analysis, design, deployment, and support services either in connection with application development projects or as independent engagements.

- Analysis services are designed to help clients gain a detailed understanding of their current network environment and include reviewing the architecture and security of the current network and analyzing the costs and risks associated with the current network.
- Design services assist clients in defining a network infrastructure capable of supporting strategic business goals and developing plans to build and manage this network.
- Cambridge also assists clients with deploying and managing the network.

Software Package Evaluation and Implementation

Cambridge performs a process for packaged software projects similar to the one it uses for custom software projects, leading clients through consulting, rapid solution workshops to choose the correct software package, customization of the software package, and then implementation.

Although the software package services are currently contracted for on a time-and-materials basis, Cambridge is working to transfer new engagements to fixed time/fixed price models.

Projects/Clients

Cambridge designed and developed a Customer Service Workbench customer management system for ReliaStar Financial Corp. The system provides an integrated view of customer information found on 16 legacy systems, as well as contract history, standard customer proposal templates, automatic policy calculations, and a lead generation tool based on customer life events.

Cambridge worked with Blue Cross & Blue Shield of Rhode Island, to design, develop, and implement a "Blue Ribbon Customer Service System" that integrates membership, claims, and research information from separate databases and to develop a customer information network integrating marketing, underwriting, benefits analysis, and communications.

For Allied Signal Aerospace, Cambridge designed and developed the Electronic Storefront System--an inventory management

system to support faster turnaround for locating and delivering parts to customers. The system links 10 legacy systems to Allied Signal to provide a common interface that permits Allied Signal and its clients to administer orders, schedule deliveries, track inventory, and prepare quotes.

Cambridge partnered with Ericsson Radio AB to create a "virtual organization" that transcends geographic locations. The system gives users in Sweden, China, Hong Kong, and Macao an integrated process for customer service and consistent operations across geographic boundaries.

Cambridge developed a customer service system for the PersonalLink Services division of AT&T that is designed to enable a customer service representative to retrieve relevant customer information prior to answering the call and to monitor usage to facilitate more efficient cross-selling and telemarketing to existing customers.

For J.P. Morgan & Co. Incorporated Cambridge supplemented J.P. Morgan's technical expertise and provided critical management skills and delivered several projects, including rapid solutions workshops, an Equities Listed Trader Workstation, and a business/technology strategy project.

Cambridge worked with Lockheed to develop a streamlined procurement system using an object-oriented development approach.

Cambridge has also developed and implemented strategic applications for Air Products and Chemicals, Ameritech, Bacardi Corporation, BellSouth Services, Blue Cross & Blue Shield of Hawaii, Charles Schwab & Co., Chrysler, Citibank, Dow Jones, DuPont de Nemours, Dutch Ministry of Economic Affairs, Federal National Mortgage Association (Fannie Mae), First Boston, Ford Motor Company, Fujitsu, General Mills, Hasbro, Hewlett-Packard, Hoechst Celanese, Hughes Space and Communications Company, Ingersoll-Rand, Inland Steel, Kaiser Permanente, Levi Strauss International, Lockheed, Los Angeles Cellular Telephone Co., Massachusetts Financial Services Co., McKesson, Michigan Department of Transportation, NationsBank, Nike, Northrop Grumman Commercial Aircraft Division, NYNEX, Options Clearing Corporation, Pacific Bell, Prudential, Putnam Investments, RJR Nabisco, Saab/Scania, Shell, Unilever, Union Fidelity Life, Union Pacific Resources Company, Vanguard Group, WearGuard, and Xerox, among others.

Other clients have included Blockbuster Entertainment, Delta Airlines, Federal Express, Microsoft, Philips, Pizza Hut Worldwide, Royal Caribbean Cruise Lines, Ryder, Sybase, Telia, and Visa.

Marketing and Sales

Cambridge markets its services in North America through a direct sales force of 19 employees operating out of its Cambridge headquarters and its regional offices, which provide clients with local contact and support.

Cambridge markets its services in Europe through a direct sales force of eight employees operating out of its offices in England, the Netherlands, and Sweden.

Cambridge also conducts cooperative marketing programs with certain hardware and software vendors, including Hewlett-Packard, Sun Microsystems, Oracle, Informix, Sybase, Aurum Software, The Vantive Corporation, and Clarify Inc.

Cambridge hosts, either independently or in conjunction with hardware and software vendors, a variety of marketing programs for MIS professionals that explain Cambridge's methodology for achieving competitive advantage through open systems and distributed computing.

Existing clients are an important component of Cambridge's marketing strategy. Approximately 50% of business is generated by repeat engagements with clients. Follow-on projects leverage sales and marketing resources and strengthen the company's client relationships.

Another component of Cambridge's marketing strategy is to expand on the experience developed in certain areas such as customer management systems in order to gain additional experience and increase the likelihood of further client assignments.

Alliances

Cambridge has a range of alliances/agreements with various vendors, including FlexiInternational, Information Resources, Integral Systems, J.D. Edwards, Logic Works, Lotus, Microsoft, Netscape, Oracle, Powersoft, PVCS, Raptor Systems, SAP, SQL Financials, Sun Microsystems, Sybase, ViewStar, and XcellNet.

Competition

Cambridge's competitors include BSG Corporation, Andersen Consulting, Technology Solutions Corporation, SHL Systemhouse, Innovative Information Systems, CAP GEMINI AMERICA, Computer Sciences Corporation, EDS, Keane, Hewlett-Packard, IBM, Unisys, and Digital Equipment Corporation.

INPUT Assessment

Cambridge strengths include the following:

- Cambridge was one of the first companies to offer client/server rapid application development and often builds applications in six months. The company's approach to development appeals to large companies, especially for large or very large projects.
- The company has expanded its service offerings through its acquisitions of SCG and Axiom, while maintaining rapid growth.

Challenges include:

- Successfully expanding into additional international markets
- Selling additional services to Axiom clients
- Completing the integration of acquired businesses

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CAP GEMINI America



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Summary Info

President/CEO: Mike Meyer
Status: Subsidiary
Parent: Cap Gemini S.A.
Employees: 3,000 (06/1997)
Revenue: \$ 466.6 mil
Year End: Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	U.S.
SAP Services	U.S.

Key Points

- Cap Gemini America is a member of the Cap Gemini S.A. group, and offers a range of strategic information technology transformation and integration services.
- As of April 1, 1997, Mike Meyer, formerly Executive Vice President with Cap Gemini America, replaced Michel Berty as President and CEO. Michel Berty, one of the original founders of the Cap Gemini Group, announced his retirement after more than 25 years with the company.
- In April 1997, Cap Gemini America and PenOp, Inc. announced an alliance under which Cap Gemini America will integrate PenOp's signature capture and recognition software with the Documentum Enterprise Document Management System (EDMS) technology.
- In January 1997, Cap Gemini America opened a U.S. Oracle National Practice within its Package Based Solutions division.
- In July 1996, Cap Gemini America's Package Based Solutions practice opened a new Bann National Practice Center to support the Baan Company's product suite.
- In September 1996, Cap Gemini America adopted the new Cap Gemini logo, now used by all Cap Gemini companies.

Company Description

Cap Gemini America is a leading provider of IT consulting and systems integration services.

The Cap Gemini Group works with clients to enable them to run their businesses better by developing knowledge-based solutions that address their most critical issues. The company works in partnership with clients, helping them manage change and strategically prepare for the future. Cap Gemini Group helps clients with the challenge of improving the way they manage their businesses, enabling them to overcome uncertainty in an era of intense competition and accelerating change.

In 1994, Cap Gemini America was awarded the ISO 9001 certification for the study, design, implementation, and maintenance of information systems.

Cap Gemini America was incorporated in the U.S. in January 1981.

Organization and Structure

Cap Gemini America is the U.S. subsidiary of Cap Gemini S.A., one of Europe's largest information technology

companies. Cap Gemini America is responsible for the worldwide coordination of Cap Gemini S.A.'s Process Sector, which covers the oil, gas, and chemical industries.

- Cap Gemini S.A. (formerly CAP Gemini Sogeti) was founded in 1975 by the joining of three information technology services and consulting companies: CAP, a Paris-based software and consulting firm; Gemini, an American firm founded in 1969 as Gemini Computer Systems, Inc. to support the establishment of software houses in Europe; and the Sogeti Group, formed in 1967 to provide consulting in the design and implementation of software applications.
- In May 1996, the name of the holding company, Cap Gemini Sogeti, was changed to Cap Gemini S.A. Under the new structure, one company (Cap Gemini) is the holding company for all the local country companies, in addition to Gemini Consulting, and 20% of debris Systemhaus.
- Headquartered in Paris, Cap Gemini S.A. had 25,950 employees as of December 31, 1996, and 1996 worldwide revenue of approximately \$2.9 billion. Including revenue from Gemini Consulting, Cap Gemini S.A. is one of the largest systems integrators in the world.
- Cap Gemini S.A. consists of eight Strategic Business Areas (SBAs). In addition to each SBA's geographic sales and delivery responsibility, each provides a center of vertical market core competence to facilitate service to a specific vertical industry. Expertise is coordinated through competency centers located in each SBA.

The geographic areas and associated vertical industries for Cap Gemini S.A.'s SBAs are as follows:

- SBA 1—U.S.: Process industries (oil, gas, and chemicals)
- SBA 2—U.K. and Ireland: Finance
- SBA 3—Nordic Countries: Utilities
- SBA 4—Benelux: Consumer Products, Retail, and Distribution
- SBA 67—France and Southern Europe: Manufacturing (automobile)
- SBA 8—Asia

Cap Gemini America is organized into five divisions—Central, East, Midwest, Southeast, and West, which have a total of 32 units. Division managers are in charge of their units, overseeing the sales and delivery of service offerings.

- Sales & Development is a complementary organization designed to support Operations with skilled specialists in higher value-added services such as package-based solutions, outsourcing, and advanced technologies (Internet and data warehousing).
- Corporate Administration/Support is Cap Gemini America's group consisting of support units, including Marketing Communications, Human Resources, Finance, and Legal. The Corporate Administration/Support group reports directly to the CEO, Mike Meyer.

Headquartered in New York City, Cap Gemini America has office locations in Akron, Cincinnati, Cleveland, and Dayton (OH), Atlanta (GA), Baltimore (MD), Chicago (IL), Columbus (GA), Dallas and Houston (TX), Delaware Valley (PA), Denver (CO), Des Moines (IA), Detroit and Grand Rapids (MI), Iselin (NJ), Kansas City (KS), Appleton, Madison, Milwaukee, and Wausau (WI), Ft. Lauderdale, Orlando, and Tampa (FL), Minneapolis (MN), Omaha (NE), Philadelphia and Pittsburgh (PA), Portland (OR), Richmond (VA), Seattle (WA), St. Louis (MO), and Washington, D.C.

In January 1997, Cap Gemini America opened the U.S. Oracle National Practice within its Package Based Solutions division, in Houston (TX). This practice center began with 20 Oracle applications consultants and expects to increase to 150 dedicated consultants in the U.S. by the end of 1997.

In December 1996, Cap Gemini America opened an office in Washington, D.C. dedicated solely to the support of the company's partnership with the United States Chamber of Commerce.

In July 1996, Cap Gemini America established a Baan National Practice in Grand Rapids (MI), which included a demonstration center equipped with hardware platforms running Baan's family of business application software. The center is used for demonstrations, testing, education, training, and technical support.

- Employing more than 40 consultants, this group is dedicated to the support of Cap Gemini S.A.'s worldwide alliance with The Baan Company by serving Baan's North American customers.
- The new Baan National Practice includes a demonstration center used for demonstrations, testing, education, training, and technical support.

Employees

As of December 31, 1996, Cap Gemini America had approximately 3,000 employees in the U.S., compared to 2,700 one year prior.

Company Strategy

Cap Gemini America and its parent company, Cap Gemini S.A., continue to move from contract programming to large-scale systems transformation projects. Cap Gemini America has continued its migration toward larger projects, such as the Bridgestone/Firestone business and system transformation contract, and its focus on vertical market expertise.

Cap Gemini America uses a best-of-breed approach in the delivery of its services by leveraging its cumulative expertise and partnering with best-of-class partners to ensure delivery of quality services.

Cap Gemini S.A.'s unique Concurrent TransformationSM service combines business process transformation and systems implementation for total conversion of systems.

Financials

Cap Gemini America's 1996 revenue was approximately \$325 million, up 24% from \$263 million in 1995.

A five-year revenue summary is shown in Exhibit 1.

Exhibit 1

**Cap Gemini America
Five-Year Revenue Summary
(\$ Millions)**

Item	Fiscal Year				
	1996	1995	1994	1993	1992
Revenue	\$325	\$263	\$197	\$173	\$183
• Percent change from previous year	24%	34%	14%	(5%)	(10%)

Cap Gemini America management attributes the turnaround in revenue during the last two years to the continued migration to large-scale systems transformation projects and expects the trend to continue.

Revenue Analysis by Product/Service Mode

One hundred percent of Cap Gemini America's revenue is derived from its systems transformation services.

Market Financials

Cap Gemini America provides services primarily to Fortune 500 and midsize businesses in a range of industries.

Cap Gemini America's revenue is derived from the following industry sectors, as indicated:

Financial services	28%
Manufacturing	21%
Telecommunications	13%
Retail and distribution	23%
Process industries	7%
Travel and tourism	2%
Government and public services	3%
Utilities	3%
Total	100%

Geographic Markets

Virtually 100% of Cap Gemini America's revenue is derived from the U.S.

Key Products and Services

Cap Gemini America's main focus is centered around six strategic offerings:

- TransMillennium® Services
- Package-Based Solutions (PBS)
- Advanced Technology Services (ATS)
- Information Technology Excellence (IT^X)
- Information Systems Management (ISM)
- Customer Care and Billing

Cap Gemini America has expertise in all types of conversions, as well as a range of technical capabilities and project management skills, including:

- Project management methodologies using *PERFORM*SM, Cap Gemini S.A.'s comprehensive set of standards, procedures, methods, techniques, and tools
- Application design, development, and documentation
- System conversions and migrations
- Software engineering

- Application maintenance

The following is a summary of Cap Gemini America's six strategic offerings:

TransMillennium® Services & Licensing

In March 1995, Cap Gemini America introduced its "TransMillennium Services" solution that uses its artificial intelligence-based ARCdriveSM toolset to renovate applications affected by the Year 2000 date problems.

- The services include assessment, strategy, applications renovation, testing, and implementation.
- Cap Gemini America has more than 200 complete and active service engagements for more than 120 Year 2000 clients in a variety of industries.
- Cap Gemini America has built the Application Renovation Center (ARC) in Tarrytown (NY), which is staffed by dedicated teams and supported by AI-based tools.
- In 1995, the company expanded this offering throughout Cap Gemini S.A. as a transnational offering. Today there are ARCs in most European countries; over a million lines of code are renovated monthly.

In addition to the above services, TransMillennium Services also offers the company's proprietary methodology and smart technology in the form of a license agreement to clients and other service providers. The TransMillennium License product allows companies to solve the Year 2000 problem in-house with automated tools, methods, and a factory-based approach.

- The company's methodology is supported by the company's integrated toolset:
 - *Assess* analyzes the impact on the client's inventory, calculates the scope of the project, and estimates costs.
 - *Strategy* uses diagnostics to help determine whether to renovate, retire, rehost, redevelop, replace, or outsource each of the client's applications.
 - *Renovate* makes full use of automation using Cap Gemini America's ARCdrive toolset at the off-site ARC.
 - During *Validate*, Cap Gemini America performs two automated tests: the 19xx test, which ensures that the renovated programs maintain original functionality, and the 20xx test, which verifies that the programs will function past the Year 2000.
 - *Implement*, the final phase, incorporates any changes made to production while the source was being renovated and tested.
- In 1996, Cap Gemini America trained more than 200 project managers and technical solutions architects in Year 2000 methods and procedures and 150 factory specialists to use the ARCdrive tools.

Package-Based Solutions (PBS)

The Package-Based Solutions division provides implementation services for Enterprise Resource Planning (ERP) systems, using strategic partners for integration of technology solutions. Implementation consulting services include program management and implementation, readiness assessment, change management, and outsourcing.

This division's range of package-related consulting services include:

- Business transformation

- Package integration
- Training

Cap Gemini America provides support for SAP, Baan, Oracle, PeopleSoft, and Computron products.

The company is an SAP Global Logo Partner and has been an authorized Baan Partner since 1994. In May 1997, Cap Gemini was selected by Baan as a 1996 recipient of the Gold Partner Award.

Advanced Technology Services (ATS)

The Advanced Technology Services group assists organizations in using the latest proven technology to transform both the business and the ways in which it is conducted.

ATS's services are provided through offerings in three major areas of current technology:

- **Architecture**—This service offering provides specifications for hardware, software, service and support, and how the products and services will be provided. To determine the technology required, ATS uses its methodology for representing infrastructure that is now adopted by IEEE as Industry Standard POSOX 1003.23.
- **Business Intelligence**— This offering integrates the organization's strategic vision with the gathering, processing, and analysis of data into a system that includes a company-wide value chain perspective.
- **Internet/Intranet**—ATS helps organizations make quick and efficient transitions to become Web-enabled enterprises. The service begins with a two-day visioning workshop to examine possibilities and identify new business opportunities. Technology required to improve the business is reviewed and the system is designed and implemented. The group can also assist in change management, where appropriate. The final step involves transferring technology to the client or assisting in outsourcing.

Information Technology Excellence (IT^X)

This group helps IT organizations improve their effectiveness through measurement, diagnostic, and benchmarking services via two offerings: Quickstrike Services and Measurement Services.

- **Quickstrike** is a rapid analysis and diagnostic service addressing all aspects of IT maintenance and development.
 - Quickstrike diagnostics are used to develop a quantitative baseline of the organization, focusing on the applications portfolio, management practices, business factors, technical infrastructure, the IT organization, and the delivery process.
 - The IT^X group maintains a comprehensive database containing information for benchmarking against trends in productivity, quality, software process maturity, use of tools and techniques, and overall IT performance.
- **Measurement Services** provide help with the design and implementation of measurement programs. Cap Gemini America's approach includes the following elements:
 - The Audience Analysis methodology helps design the measurement program to align with the culture and goals of the organization.
 - Development of "measurement dashboards," a group of related graphs that detail the selected metrics to be used in gauging performance, goals, and objectives
 - Review of existing tracking systems and assess their capability to provide data for supporting the dashboards.

- Implementation of the measurement program.

Information Systems Management (ISM)

Information Systems Management (ISM) is Cap Gemini America's service offering that provides the majority of the firms outsourcing activities. Services include desktop support, central helpdesk, infrastructure management, legacy facilities and applications management, wide area network services, and business process outsourcing.

Outsourcing contracts are either "stand alone" or as part of an integrated outsourcing contract covering development and operations, or as part of a Concurrent Transformation™ contract covering business and systems.

Service offerings include the following:

- Applications management
- Consulting (Process Development)
- Projects (Innovative Systems Development)
- Distributed computing services
- Centralized computing services
- Network services

Customer Care and Billing

Cap Gemini America's Customer Care and Billing (CC&B) provides systems integration services for the PCS, Cellular, and ESMR markets. Cap Gemini has provided CC&B services for European telecom and media companies.

Cap Gemini America builds interfaces between package-based CC&B systems and banks, credit bureaus, management support systems, as well as a full range of wireless network elements. The company also offers consulting in configuring a variety of systems to business environments. Cap Gemini America assumes overall responsibility for the billing system and its full integration with the clients' business and existing infrastructure.

Marketing and Sales

The company's reorganization in 1995 formalized the Corporate Administration/Support and Sales & Development groups, which report directly to the CEO. The groups' functions are to support the Operations group and to further the migration to more value-added projects and services.

The company has business partnerships with various vendors that allow Cap Gemini America to perform in both prime and subcontractor roles in systems transformation projects.

Cap Gemini America has agreements with the following companies:

- Hardware vendors—IBM, Sun Microsystems, Dell Computers, NEC, Hewlett-Packard, Digital Equipment Corporation, NeXT, and Compaq
- Software vendors—Microsoft, Oracle, Informix, Sybase, SAP, Peoplesoft, Dun & Bradstreet, qad, Computron, Documentum, Novell, Parc Place, Platinum Software, PSDI, Sherpa, FileNet, Baan, Novell, and Sterling Software
- Industry market leaders—The Foxboro Company, Allen-Bradley, and POSC
- Service vendors—ATEC Technical School, ACS, I-Net, ISSC, and Vanstar

Clients

A sampling of Cap Gemini America's clients include AKZO Chemical Company, Allstate, ARCO, Arrow, Bell South, Blue Cross/Blue Shield, Compaq, Coors, Dutch State Mining, Exxon, Ford Motor Company, The Foxboro Company, General Electric, Goodrich, Shell, Goodyear, IBM, National Football League Players Association, Mercedes-Benz Credit Corporation, Merrill Lynch, Nike, Petrochemical Open Software Corporation, The Prudential, Ralcorp, the U.S. Chamber of Commerce, and USAA.

Some significant contracts awarded to Cap Gemini America are described below.

- In June 1997, Cap Gemini America and GTE Data Services Inc. entered into a licensing agreement to provide GTE with the TransMillennium™ License to provide systems solutions to its internal and external customers for Year 2000 date change work.
- In May 1997, Cap Gemini America and Gemini consulting announced a two-year contract with Bridgestone/Firestone, Inc. for business and systems transformation services to create a competitive advantage for Bridgestone/Firestone in its business relationships through supply chain enhancements. Cap Gemini America and Gemini consulting are using "concurrent transformation" to simultaneously transform the business processes while implementing an integrated system solution including an ERP system and Advanced Planning Software.
- In April 1997, Cap Gemini America was awarded a 109-year, \$75 million transformational outsourcing contract with the United States Chamber of Commerce (USCC). Under the terms of the agreement, Cap Gemini America will manage USCC's computer operations, providing applications management, distributed computing, facilities management, central help desk services, infrastructure management services, mainframe applications support, legacy applications management services, WAN services, and business process outsourcing services.
- For a North American customer, Cap Gemini America is helping to leverage early European Bann experience across the U.S.
- Northern Trust Company of Chicago, the principal subsidiary of Northern Trust Corporation, also has a licensing agreement with Cap Gemini America for its TransMillennium™ License product.
- For a Canadian customer, Cap Gemini America is helping to design the company's next Baan implementation phase in Europe.
- Cap Gemini America and its alliance partners, The GENIX Group and I-Net, won a contract for more than \$100 million from Ralcorp Holdings, Inc. According to the agreement, Cap Gemini America will provide overall program management for the partnership and will provide Ralcorp's business systems planning, transformation, and management services.
- The Ras Laffan Liquid Natural Gas refinery selected the alliance of Cap Gemini and The Foxboro Company to design and implement an information system that will integrate all operations—from the wellhead to the finished product.

- The concept of implementing the information system before the construction of the refinery is a first for the petroleum industry.

- This idea supports the concept that an information system can speed and support the construction of a refinery by eliminating the duplication of databases, automating the documentation management, and directing the project management of the construction.

- Cap Gemini America designed a client/server system for the Mercedes-Benz Credit Corporation that provides on-line access, rapid response, and high-reliability information exchange.
- Cap Gemini America was awarded the SAP implementation for The Foxboro Company's worldwide operations. After prototyping the system in the U.S., the traveling team of Foxboro and Cap Gemini America employees has been implementing the system in Italy, Germany, Singapore, and the U.S.

Alliances

A sample of significant alliances formed by Cap Gemini America during the last few years includes the following:

- In April 1997, Cap Gemini America and PenOp, Inc. announced an alliance under which Cap Gemini

America will integrate PenOp's Biometric Token signature capture and recognition software with the Documentum Enterprise Document Management System (EDMS) technology. Cap Gemini America offers integrated document management and work flow solutions using Documentum, Inc.'s EDMS as the foundation platform. Cap Gemini has also become a preferred integration partner of PenOp

- In March 1997, the Cap Gemini Group and The Portal Information Network announced an international agreement under which Cap Gemini Group will market Portal's Infranet[®]; software platform to Internet Service Providers (ISPs), on-line services, and businesses building corporate intranets. Under the terms of the agreement, Cap Gemini will implement and support Infranet and customize the platform to customer requirements via competency centers throughout the U.S., Europe, and global markets.
- In March 1997, Cap Gemini America and USDATA announced an alliance under which the two companies will provide vertically-integrated IT systems for the manufacturing industry. Cap Gemini America will further enhance its capabilities in factory floor-to-front office information integration through proactive utilization of USDATA's FactoryLink Enterprise Control System[®]; (ECS). USDATA will offer improved customer service by leveraging Cap Gemini America's consulting capacity.
- Cap Gemini America is a "Partner" within the Microsoft Solution Provider Program, which jointly markets Microsoft-based systems integration solutions. The partner level is the highest level of participation in the program.
- Cap Gemini America developed a close working alliance with The Foxboro Company to pursue large integrated projects such as that for the Ras Laffan LNG refinery. The alliance is currently pursuing other international projects.
- Cap Gemini America's Package-Based Solutions unit supports Oracle, Peoplesoft, and Computron in addition to SAP. The unit expanded from its Houston office in 1996 by opening an office with more than 40 employees in Grand Rapids (MI) to support The Baan Company.

Competition

Cap Gemini America competes with large U.S. information technology consulting companies, including Andersen Consulting, Electronic Data Systems, Computer Sciences Corporation, and IBM (ISSC).

INPUT Assessment

Cap Gemini America's strengths include:

- Experience managing complex and/or large projects
- Experience managing transnational projects
- The *PERFORMSM* set of standards, procedures, methods, techniques, and tools through which Cap Gemini America ensures quality on all its projects
- ISO 9001 certification for the study, design, implementation, and maintenance of information systems
- Operating as part of a diversified team (partnering with the client's resources)

Challenges for the coming year include:

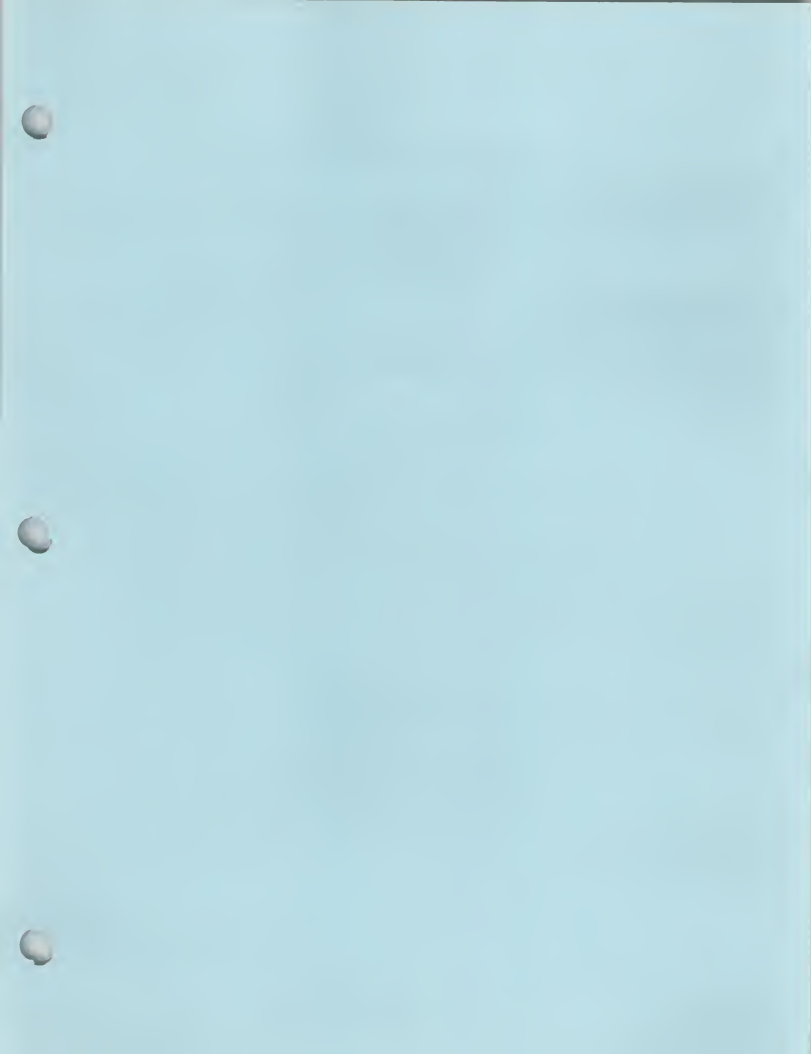
- Discovering technical resources
- Maintaining the explosive growth of the Year 2000 projects

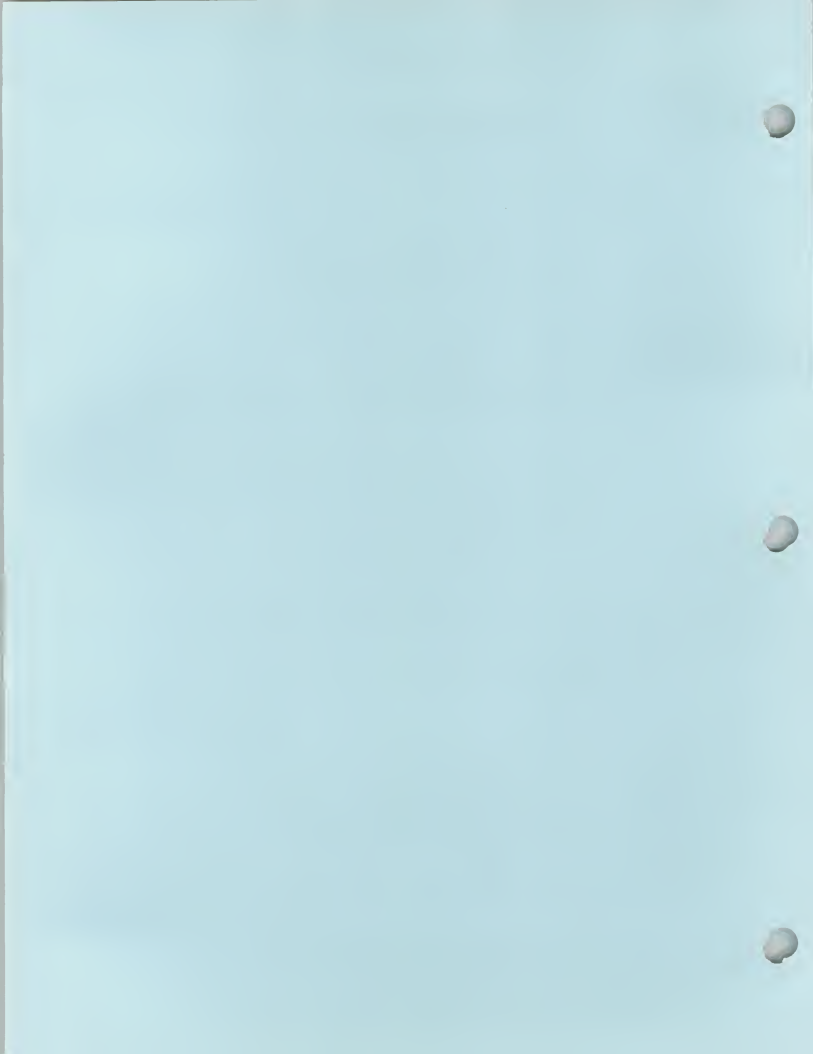
Parent Company

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Cap Gemini Sogeti S.A.



UPDATED:
06/01/1997

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Company Web Site:
<http://www.capgemini.com>

Summary Info

President: Paul Hermelin
:
Status: Public
Parent:
Employees: 38,000 (12/1998)
Revenue: \$ 25,900.0 mil
Revenue (FF mil): 17,600.0
Year End Dec-1998

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Customer Care and Billing Solutions	Europe
Desktop Services	Europe
Enterprise Applications Solutions	U.K.
SAP Services	U.K.
SAP Services (France)	France
SAP Training and Support Services	Europe
SAP Training and Support Services	U.S.

Key Points

- Cap Gemini S.A. is a leading French software and services company with wide-spread European geographic coverage and increased activities in the U.S. and Asia.
- The company reported a strong increase in net income from 1995 to 1996.
- In September 1996, Cap Gemini implemented a worldwide logo and naming convention to provide a unified company profile.
- In January 1997, Cap Gemini integrated the Bossard Group into its operations.

Company Description

Cap Gemini was founded in 1975 under the name Cap Gemini Sogeti through the merger of the Sogeti Group, Gemini Computer Systems, and CAP.

Sogeti had been established in France in 1967 by Serge Kampf, who is now chairman and CEO of the group and one of its largest shareholders.

Cap Gemini has, through organic growth and aggressive acquisition, reached a position as one of the leading software and services vendors in Europe. Some of these acquisitions have been crucial for establishing footholds in Europe:

- The 1993 acquisition of Hoskyns established Cap Gemini firmly in the U.K.
- The 1992 acquisitions of Programator and Volmac provided strongholds in the Nordic countries and Benelux, respectively.
- An alliance with Daimler Benz, dating back to 1991, that gave debis (Daimler Benz's internal IT division) a share in Cap Gemini while establishing the joint venture IT services company Debis Systemhaus

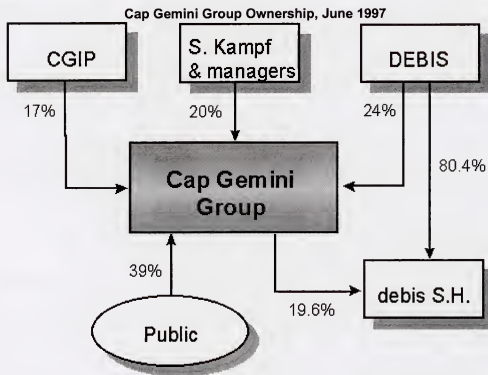
These and other acquisitions meant that the structure of Cap Gemini became quite fragmented and traded under a variety of company names. In September 1996, the company reorganized its group capital structure to create the Cap Gemini Group. At the same time, all operating companies across the world rebranded in order to trade under the Cap Gemini name and logo.

Debis' investment in Cap Gemini has a higher limit dictated by the U.S. "Bank Holding Company Act." Daimler Benz, debis' parent company, is 24.4% owned by the Deutsche Bank. As Cap Gemini has major activities in the U.S., the "Bank Holding Company Act" becomes relevant, not allowing any bank-owned company to have investments in a services company higher than 25%.

However, debis has announced its intention to sell its stake in Cap Gemini, reflecting the diverting strategies of the two companies. The shares will be sold to institutions outside the U.S. At the same time, debis will buy back Cap Gemini's stake in debis Systemhaus.

Exhibit 1 shows the ownership structure of the Cap Gemini Group.

Exhibit 1



Source: INPUT

Operations and Structure

Cap Gemini is organized around geographical Strategic Business Areas (SBA) and vertical markets. Exhibit 2 shows the organization of the Cap Gemini Group.

The global market units have been formed to address the increasing globalization of the company's customers and their business issues.

Cap Gemini was already active in the telecommunications and media market in Europe. However, the company believes that through the formation of global market units it can better focus efforts and skills from both its IT services and its management consulting arms. This unit has a team of 1,000 employees.

Apart from the global market units, Cap Gemini also focuses on the following vertical markets:

- Process Industries
- Banking and Finance
- Utilities
- Consumer Products, Retail, & Distribution
- Government & Public Services
- Manufacturing

Exhibit 2

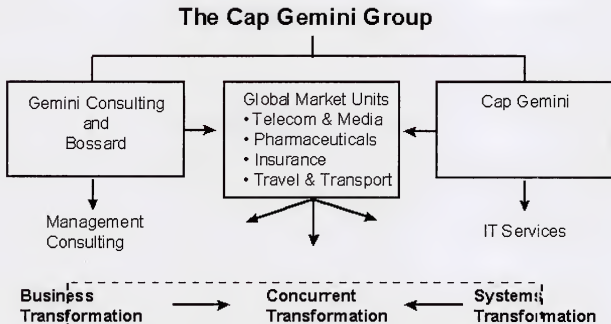


Exhibit 3

**Cap Gemini S.A.
Five-Year Financial Summary
(FF Millions)**

Year	1992	1993	1994	1995	1996
Revenue	11,884	11,028	10,176	11,329	14,810
Percent Change from Previous Year	19%	-7%	-8%	11%	31%
Net Income	-72	-429	-94	52	280
Net Income as % of Revenue	N/A	N/A	N/A	0.5%	1.9%
Average Number of Employees	21,675	20,900	19,001	20,477	23,934
Revenue per Employee	0.548	0.528	0.536	0.553	0.619

Source: Cap Gemini/ INPUT

Financial Information

In 1995, Cap Gemini returned to profitability after a spell of losses in the early 1990s that was mainly caused by integration of its acquisitions.

The company's 1996 financial results showed further improvement. Revenue increased by 31% to FF 14.8 billion (\$2.9 billion), while net income improved by more than 400%. Exhibit 3 provides a summary of Cap Gemini's financial results for the past five years.

The revenue for 1996 includes a consolidation of Gemini Consulting into the group for a period of seven months. Without this integration, the revenue increase from 1995 to 1996 would have been 18%.

Market Analysis

Cap Gemini's major activities are software production, professional services, and outsourcing. Exhibit 4 shows INPUT's estimate of the split of the company's worldwide revenue in 1996 by product/service mode.

Exhibit 4

**Cap Gemini S.A.
Worldwide Revenue by Product/Service Mode
(\$ Millions)**

Product/Service Mode	Revenue (\$ Millions)	Percent of Total
System Software Products	60	2%
Application Software Products	125	4%
Professional Services	1,280	45%
Systems Integration	570	20%
Systems Operations	615	22%
Other	200	7%
Total Software & Services	\$2,850	100%

*Source: INPUT Estimates
Percentages rounded*

Cap Gemini generates close to 90% of its revenues in Europe. Exhibit 5 shows the company's European revenue by product/service mode, as estimated by INPUT.

Exhibit 5

**Cap Gemini S.A.
European Revenue by Product/Service Mode,
(\$ Millions)**

Product/Service Mode	Revenue (\$ Millions)	Percent of Total
System Software Products	60	2%
Application Software Products	100	4%
Professional Services	1,190	48%
Systems Integration	500	20%
Systems Operations	550	22%
Other	80	3%
Total European Software & Services	\$2,480	100%

Source: INPUT Estimates
Percentages are rounded

Exhibit 6 shows INPUT's estimates of Cap Gemini's worldwide revenue by vertical market.

Exhibit 6

**Cap Gemini S.A.
Revenue by Industry Sector
(\$ Millions)**

Industry Sector	Revenue (\$ Millions)	Percent of Total
Manufacturing	485	17%
Process Industries	255	9%
Transport, Travel & Tourism	170	6%
Retail & Distribution	315	11%
Telecommunications & Media	370	13%
Utilities	145	5%
Banking & Finance	655	23%
Public Sector	455	16%
Total Software & Services	\$2,850	

Source: INPUT Estimates
Percentages are rounded

Exhibit 7 provides INPUT's estimate of Cap Gemini's European revenue by industry sector.

Exhibit 7

**Cap Gemini S.A.
European Revenue by Industry Sector
(\$ Millions)**

Industry Sector	Revenue (\$ Millions)	Percent of Total
Manufacturing	670	27%
Banking & Finance	545	22%
Public Sector	420	17%
Retail & Distribution	250	10%
Telecommunications & Media	295	12%
Other	300	12%
Total European Software & Services	\$2,480	100%

Source: INPUT Estimates
Percentages are rounded

Geographic Markets

Cap Gemini's operations are divided into strategic business areas (SBAs). These are:

- SBA 1— U.S.: Process industries (oil, gas, and chemicals)
- SBA 2— U.K. and Ireland: Finance
- SBA 3— Nordic Countries: Utilities
- SBA 4— Benelux: Consumer Products, Retail, and Distribution
- SBA 67— France and Southern Europe: Manufacturing (automobile)
- SBA 8— Asia

In November 1996, Cap Gemini opened an office in Singapore, Cap Gemini Asia. The company plans to generate 10% of its revenue from Asia by 2002.

Exhibit 8 shows INPUT's estimate of the origin of Cap Gemini's revenue by country. Cap Gemini's activities in Germany via its investment in debis Systemhaus are not considered.

Exhibit 8

**Cap Gemini S.A.
Revenue by Country
(\$ Millions)**

Country	Revenue (\$ Millions)	Percent of Total
France	740	26%
U.K.	570	20%
Netherlands	475	17%
U.S.	315	11%
Sweden	170	6%
Belgium/Luxembourg	140	5%
Denmark	115	4%
Norway	85	3%
Italy	60	2%
Spain/Portugal	30	1%
Switzerland	30	1%
Austria	25	1%
Finland	25	1%
Other	55	2%
Total Software & Services	\$2,850	100%

Source: Cap Gemini/ INPUT Estimates
Percentages rounded

Key Products and Services

Historically, Cap Gemini has concentrated on marketing professional services, typically custom system and software development. The company does not consider its business to be in products, either hardware or software, even though in the past software products have been acquired as part of acquisitions of professional services groups.

Today, Cap Gemini's focus has moved away from professional services toward systems integration and systems operation.

Cap Gemini's range of services is categorized into:

- *Service Offerings* which include:

- Year 2000: The company has around 190 engineers working with 2 billion plus lines of code scanned or in process

- Euro: Approaches and tools developed to support transforming businesses to take advantage of the single European currency unit. The group has started by aggressively targeting the finance sector and is now delivering solutions to the pharmaceuticals, retail, and other industries.

- Internet and Electronic Commerce: Approaches to help companies reposition for developments in these key technologies.

- *Information Systems Management* is Cap Gemini's outsourcing business. The company will manage all or part of a client's information resources (including hardware, networks, applications, and people) under the provision of a long-term, contractual service level agreement. Available services include applications management, facilities management, and the management of distributed computing environments.
- *Consulting*, which involves assisting clients in the areas of strategic business planning, operational streamlining, and the use and practical applications of advanced IT solutions. Gemini Consulting provides specialized business transformation consultancy services.
- *Project Services* covers the design, development, and delivery of information systems. The services encompass software development, systems integration, and software product integration.

Cap Gemini also offers education and training aimed at supporting IT and non-IT professionals and end users in the use of new information technology. The company also supplies, implements, integrates, and provides support for packaged software solutions.

Cap Gemini has further developed specific sector offerings relating to its targeted global markets. For the insurance market, the company's services relate to three core offerings:

- ICIS (Insurance Company Information System), which is a customer, product, and administration management system
- DCM (Distributed and Customer Management)-a portfolio of offerings aimed at enabling insurance companies to manage multiple distribution channels and maintain long-term customer relationships
- Business Consultancy-a full range of business consulting services from strategy development to implementation, design and management

In the telecoms and media market, Cap Gemini's offerings relate to:

- Customer care and billing for basic telephone services, cellular, cable TV, etc. cetera
- Operations support, such as transmission facilities and computing infrastructure
- Telecom services, including intelligent network infrastructure and voice value-added services
- Corporate management, which encompasses the supporting accounting, provisioning, and human resources areas

Recent Projects and Major Clients

Recent major projects include:

- In May 1997, Cap Gemini in the U.K. won a four-year contract with British Steel to provide management and support of distributed systems and 500 desktop personal computers. The contract is valued at £3 million.
- In April 1997, Cap Gemini America announced that it had won a ten-year, \$75 million outsourcing contract with the United States Chamber of Commerce. Under the terms of the agreement, Cap Gemini will provide help desk services, infrastructure management services, mainframe applications support, applications

management, facilities management, wide-area network services, and business process outsourcing services.

- In February 1997, Cap Gemini in the U.K. announced that it had been contracted by the Coal Authority to build the U.K.'s largest geographical information system. The contract is for eight years and is worth £11 million.
- Cap Gemini's Dutch company is working with the Dutch Public Works Authorities (Rijkswaterstaat) to improve road safety. The project entails expanding and modernizing the complete chain of IT systems for highway observation. Cap Gemini has also been made responsible for constructing part of the highway observation system's operating system.

Exhibit 9 shows a selection of Cap Gemini's major clients.

Exhibit 9

A Selection of Cap Gemini S.A.'s Major Clients

Industry Sector	Client
Process Manufacturing	Zeneca Agrochemicals Glaxo Atochem Pepsi Cola Ralcorp ASTRA Imperial Tobacco Statoil Exxon Chemicals
Discrete Manufacturing	Fokker Aircraft Renault V.I. Volvo Ford
Public Sector	Dutch Ministry of Foreign Affairs French National Library British Ministry of Defence
Transport, Travel & Tourism	British Airways Avionic Engineering Bollere Technologies Group
Utilities	EDP GDF (French national electricity and gas utilities) British Gas OKG AB
Telecommunications & Media	Bell South France Telecom Deutsche Bundesposttelekom
Banking & Finance	ABN Amro Nordbanken Bankpyme Berliner Volksbank EG

Source: Cap Gemini

Acquisitions and Alliances

During the past decade, Cap Gemini has made many acquisitions. However, 1996 became the year when the company focused on reorganizing and consolidating its activities. Cap Gemini's only acquisition of the year was the increase of the company's shareholding in the Bossard Group from 49% to full ownership. The deal came into effect

on 1 January 1997. Bossard's activities in management consulting have been fully integrated into the Cap Gemini Group.

In October 1996, the company's Dutch subsidiary also announced that it had increased its share in two multimedia companies, BIT and Interactive Concepts & Production (IC) to 100%. The two companies will retain their own names and identities.

Part of Cap Gemini's mission is to partner with business technology leaders worldwide. The company's Strategic Alliance Partners include:

- Baan
- Compaq
- Digital Equipment Corporation
- Hewlett-Packard
- I2
- IBM
- IMI
- Manugistics
- Microsoft
- Oracle
- PeopleSoft
- SAP
- Sun Microsystems
- Tandem

INPUT Assessment

Initially, Cap Gemini gained its strong position in the European professional services market through a range of acquisitions. The strategy was to leave the companies to act as local companies, retaining their own names and logos. This has no doubt been comforting for existing clients, though it left Cap Gemini as a whole looking very fragmented in the market.

In 1996, Cap Gemini finally brought all companies under one name and one logo. This move was long overdue. The earlier fragmentation has not only affected the company's image in the marketplace, but must surely also have weakened the corporate spirit.

One of Cap Gemini's weaknesses has always been its lack of business consulting resources compared with competitors like Andersen Consulting and now also EDS. As part of the organizational change in the past year, Cap Gemini has integrated Gemini Consulting into the organization. The areas in which this change will be most obvious are the new global market units. The addition of the Bossard Group in January 1997 will further strengthen Cap Gemini's business consulting capabilities.

The formation of global market units also addresses another area that Cap Gemini has needed to strengthen. The company has a very strong technical background, but has needed to demonstrate detailed knowledge of business issues pertaining to its key vertical markets. By combining the expertise of Gemini Consulting with the IT services arm of the Group in the global units, Cap Gemini has taken a major step in achieving this.

The next two years should be very interesting for Cap Gemini. The company has now implemented a number of strategic changes that should ultimately affect the financial results positively. Although the company increased its profitability strongly from 1995 to 1996, Cap Gemini still has some way to go before its profit margin is at the level of some of its major competitors.

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CGI Corporation - Europe

**UPDATED:**
12/01/1996**Headquarters**

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France

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Fax:
+33 1 40772222

Company Web Site:
<http://www.cgi-corp.com>

Summary Info

CEO:	Alain Bouviala
Status:	Subsidiary
Parent:	IBM
Employees:	4,460 (12/1995)
Revenue:	\$ 434.0 mil
Revenue (FF mil):	2.2
Year End	Dec-1995

Key Points

- CGI was a leading French independent software and services vendors until IBM acquired the company in 1993
- 1995 financial results show a satisfactory increase in revenue
- The company is technically well-positioned but late in addressing the emerging client/server market needs
- CGI is best known for its pioneering CASE tools and methodologies
- Three new important partnerships with SUN, ORACLE, and PMSIM Systems A/S.

Company Description

CGI Informatique was founded in 1951 and is one of the leading French IT software and services companies. It has a presence both in the custom and package software markets. CGI was acquired by IBM in 1993 in this company's "quest to reinforce its application development offering, business software packages and CASE tools". The move was accepted by CGI because it would help "develop its international activities more ambitiously, supported by the world's leading network in information technology".

CGI operates independently of IBM and claims to remain "firmly multi-vendor oriented".

Organisation and Structure

CGI operates under an Advisory Board—chaired by the vice-president of Software and Services, IBM Europe—which includes representatives of a number of IBM functions and of IBM services and software operations in other countries.

Exhibit 1 shows the names and functions of key CGI executives.

Exhibit 1

CGI Key Executives, 1995

Alexandre Attal	CGI International
Alain Bouviala	Consulting & Professional Services
Charles Tarbe	Application Software Development & Services
Christian Vialard	Application Software Marketing & Sales (International)
Jaques Garcia	
Pascal Garrigue	CASE Systems
Xavier Noury	CGI Regions

Source: CGI

CGI is divided into the following divisions:

- The *Applications Software Division* is responsible for strategy related to the Group's applications software. In order to ensure the corresponding development and maintenance, it has at its disposal several hundred developers working at four sites in France, Germany and the UK. The division is in charge of product marketing, as well as of strategy and worldwide support for related customisation services
- The *Application Software Marketing and Sales Division* is responsible for sales and distribution policy world-wide. Part of its brief is to ensure the necessary support to local business units and co-ordinating the different distribution partners and channels. In addition, it is in charge of direct marketing for application software products in France
- The *CASE Systems Division* develops and markets I-CASE tools and is also responsible for the Group's methodology development and for monitoring technology trends
- The *Consulting and Professional Services Division* is organised by industry, in order to define the most appropriate service strategy for each industry and to capitalise on the Group's expertise

CGI has three geographic business units that are responsible for marketing the Group's products and services to locally based customers.

CGI Regions, with a workforce of over 500, co-ordinates the activity of the 18 regional branches in France.

The eight European subsidiaries, with a total workforce of over 1,000, and the Canadian and Mexican subsidiaries form the CGI International organisation.

CGI Systems Inc. has a staff of 400 working in a network of 17 offices across the USA.

Financial Results

Exhibit 2 provides a four-year summary of CGI's financial results.

Exhibit 2

CGI's Four-year Financial Summary (FYE 31-12-95) (FF Millions)

Year	1992	1993	1994	1995
Revenues worldwide	2,002	1,892	2,018	2,170
Annual Growth Rate	-	-5%	7%	7.5%
Profit before Taxes	230.0	192.2	208.8	N/A
Profit after Taxes	123	89	100	140
Revenue per Employee	0.507	0.477	0.502	0.487

Source: CGI

Market Analysis

Exhibit 3 shows INPUT's estimates of CGI's European revenues by delivery modes.

Exhibit 3

CGI's European Revenues by Delivery Modes, 1995 (\$ Millions)

Delivery Mode	Revenue In \$ Millions	Share
Application Software	178	41%
Professional Services	182	42%
Turnkey Systems	52	12%
Systems Integration	4	1%
Systems Operations	1	<1%
Total Software & Services		96%
Other (e.g. non-IT-Consulting)	17	4%
Total	434	100%

Source: INPUT Estimates

CGI announced three new partnerships this year to strengthen its position on the market.

- At the beginning of 1996 CGI announced a technical partnership with the Danish Software Vendor PMSIM Systems A/S
- Its partnership with SUN includes the joint international promotion of PACBASE in the Sun Solaris environment
- In the future CGI will integrate also its Human Resource Management solution with Oracle's Applications.

CGI hopes that these alliances will improve its access to new markets and provide a wider availability of its products.

Exhibit 4 shows an estimate of CGI's European revenues analysed by industry sector.

Exhibit 4

CGI European Revenue by Industry Sector, 1995 (\$ Millions)

Industry Sector	Revenue in \$ Millions	Share
Discrete Manufacturing	70	16%
Process Manufacturing	70	3%
Transportation	17	4%
Wholesale & Retail Distribution	30	7%
Utilities	17	4%
Telecommunications	22	5%
Banking & Finance	114	26%
Insurance	82	19%
Local Government	26	6%
National Government	34	8%
Healthcare	4	1%
Business Services	4	1%
Total European Software & Services		100%

Source: INPUT

Geographic Markets

Exhibit 5 shows an estimate of CGI's revenues by country.

Exhibit 5

CGI's European Revenue by Country 1995 (\$ Millions)

Country	Revenues in \$ Millions	Share
France	312	72%
Germany	48	11%
United Kingdom	17	4%
Italy	13	3%
Spain	13	3%
Switzerland	13	3%
Portugal	8	2%
Belgium	9	2%
Austria	1	<1%
Total European Revenue		100%

Source: INPUT

Key Products and Services

Products and Services offered by CGI include the following:

- Consulting and professional services, the core of CGI's activities, covering software application projects from planning to design, implementation and maintenance
- Real-time and scientific professional services, including the implementation of advanced technologies in the fields of computer-aided software engineering (CASE), systems simulation, real-time systems and artificial intelligence for aerospace, space, defence, computer-aided manufacturing and telecommunications industry
- Computer-aided software engineering (CASE) systems, including PACBASE, PACLAN and PACLANX
- The SIGAGIP applications products, designed to manage human and financial resources
- Computer-integrated manufacturing through the Tzar II system (including CIM, purchasing, maintenance, etc.), the PRODSTAR manufacturing control system, and TDMBASE, technical reference and quality control system
- Distribution control of industry products and spare parts through POP/MS for IBM mainframes and AS/400s (including manufacturing control and accounting modules)
- Facilities management services, including design of solutions, implementation and management of the required resources
- Management consultancy, through EUREQUIP and GMV Conseil.

INPUT Assessment

CGI offers a broad range of products and services. In Europe, CGI derives most of its revenues from France.

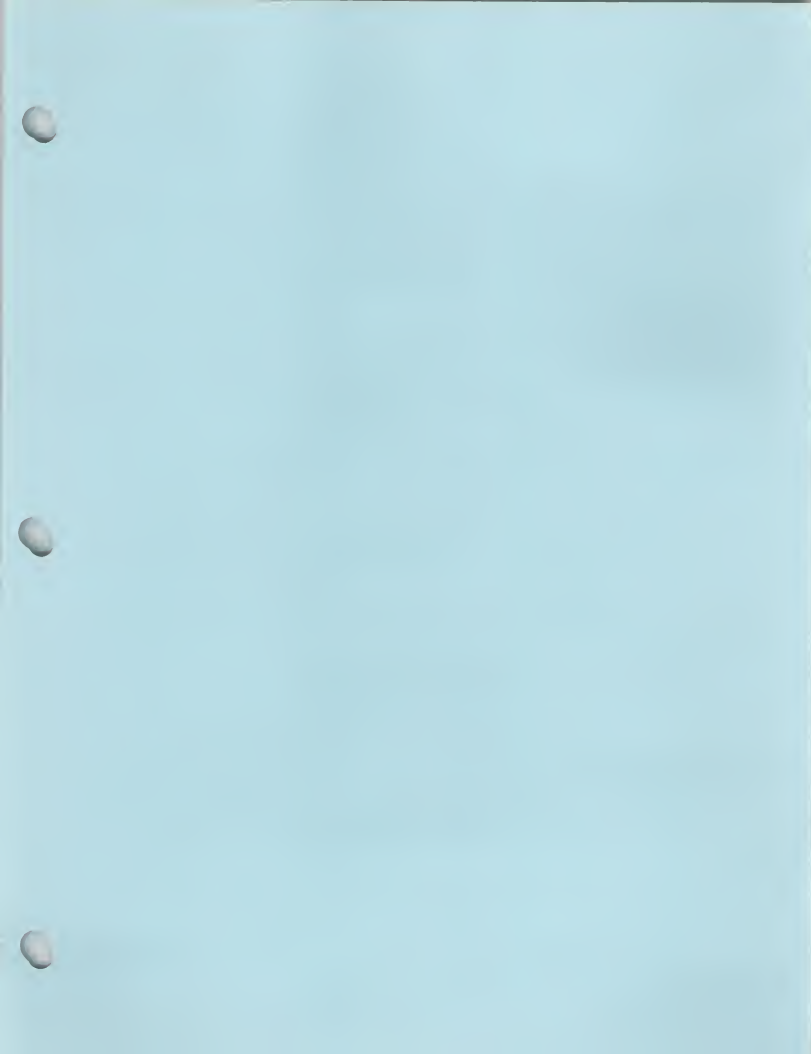
CGI faces the same main challenge as a number of other leading European-based software and services vendors, namely to become a Pan-European player by expanding its business in the major European markets.

Outside its domestic market, CGI has put a lot of emphasis on developing its business in Germany, Spain, Italy, United Kingdom, Switzerland, Netherlands, Belgium. The company has also successfully started operations in Portugal and won contracts in Austria. Clearly, the IBM link provides the opportunity to develop this potential further.

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Cincom Systems, Inc.



UPDATED:
06/01/1996

Headquarters

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Cincinnati, OH 45211
U.S.

Phone:
(513) 662-2300

Fax:
(513) 481-8332

Company Web Site:
<http://www.cincom.com>

Summary Info

President/CEO:	Thomas M. Nies
Status:	Private
Employees:	980 (09/1995)
Revenue: *	\$ 168.0 mil
Year End	Sep-1996

Key Points

- Cincom Systems, Inc. is a privately held software company offering manufacturing and financial applications as well as complete solutions for object-oriented and fourth-generation language application development, client/server and object-relational databases, work-flow automation, and document management.
- In March 1996, Cincom and IBM announced a strategic global partnership consisting of technology, service, and marketing initiatives to deliver manufacturing solutions to joint customers.
- In January 1996, Cincom introduced the CONTROL:Acquire™ suite of software products, the most recent addition to the company's enterprise management product line.

In December 1995, Cincom released TOTAL FrameWork™, the industry's first object-oriented application assembling environment.

Company Description

Cincom Systems, Inc., founded in 1968, was incorporated in Ohio as a firm specializing in database software. Cincom entered the database management system market in 1969 with the delivery of the high-performance, large-volume DBMS, TOTAL™.

Cincom software products run under a variety of operating systems, including UNIX, NT, and all the major host-based proprietary and non proprietary operating systems and support platforms from Hewlett-Packard, Sun Microsystems IBM, Digital Equipment, Data General, Sequent, Fujitsu, Groupe Bull, and Siemens-Nixdorf.

Organization and Structure

Cincom is organized into integrated product-specific divisions. Each division is responsible for the development, support, marketing, and sale of its specific product line.

- Divisions include: the Advanced Technology Group, Business Control Systems, and the Document Solutions Group.
- Complementing these product-specific divisions are Cincom's Greater Asia/Pacific operation, Latin-American Licensee, and Legal and Administrative Services divisions, and Finance.

Cincom is headquartered in Cincinnati (OH) with U.S. regional offices located in Atlanta (GA), Boston (MA), Chicago (IL), Dallas (TX), Irvine and San Francisco (CA), Minneapolis (MN), Philadelphia (PA), Pittsburgh (PA), St. Louis (MO), and Washington D.C.

Regional international headquarters are located in London (England), Copenhagen (Denmark), Paris (France), Frankfurt (Germany), Tokyo (Japan), Sydney (Australia), Singapore, Hong Kong, Sao Paulo (Brazil), Monaco, and Toronto (Canada).

- Other international offices are located in Montreal, Ottawa, and Vancouver (Canada); Maidenhead and Manchester (England); Edinburgh (Scotland); Geneva and Zurich (Switzerland); Brussels (Belgium); Nieuwegein (the Netherlands); Eschborn (Germany); Gothenburg (Sweden); Oslo (Norway); Osaka (Japan); Melbourne (Australia); Wellington (New Zealand); Rio de Janeiro (Brazil); Madrid and Barcelona (Spain); and Mexico City (Mexico).
- Independent agents market Cincom's products in Argentina, Chile, Colombia, Ecuador, Finland, Greece, Guatemala, Indonesia, Israel, Italy, Korea, Malaysia, Panama, Peru, the Philippines, Portugal, Saudi Arabia, South Africa, Spain,

Taiwan, Thailand, Turkey, Uruguay, Venezuela, and Yugoslavia.

Company Strategy

The foundation of Cincom's strategy is its customer focus. The company is committed to providing strategic and tactical support for its clients' information systems. Cincom provides innovative new technologies through internal development as well as through global strategic alliances with other leading providers of complementary technologies and services.

Cincom is committed to helping its clients successfully implement and integrate technologies by providing comprehensive and ongoing services from the outset of any initiative. The company's objective is to streamline its clients' implementation and expedite their return on investment. The company is committed to lowering clients' risk, reducing their costs, and saving time.

Financials

Cincom's fiscal 1995 revenue reached \$155.0 million, a 3% increase over revenue of \$150.0 million for fiscal 1994. Fiscal 1995 revenue growth was attributed to the introduction of new product technology.

Research and development expenditures were approximately 12% of revenue in both fiscal years 1995 and 1994.

Cincom Systems, Inc. Five-Year Financial Summary (\$ Millions, except per-share data)

Item	Fiscal Year				
	9/96	9/95	9/94	9/93	9/92
Revenue	\$168.0 (a)	\$155.0	\$150.0	\$156.0	\$158.0
• Percent change from previous year	8%	3%	(4%)	(1%)	2%

(a) Projected fiscal 1996 revenue.

Revenue Analysis by Product/Service

One hundred percent of Cincom's fiscal 1995 revenue was derived from software products and associated support services. Source of revenue, by product line, is estimated as follows:

Database	40%
Application development	23%
Manufacturing	29%
Other	8%
	100%

Market Financials

Cincom markets its products to Fortune 1000 companies across industries, and to federal, state, and local government.

Geographic Markets

Approximately 38% of Cincom's fiscal 1995 revenue was derived from the U.S. and 62% from international sources.

A further breakdown of fiscal 1995 revenue follows:

North America	42%
Europe	41%
Asia/Pacific	13%
South America	2%
Other	2%
	100%

The company currently has more than 60 offices in 20 countries, and more than 20 distributors located internationally.

Employees

In fiscal 1995, Cincom had a total of 980 employees, 494 in the U.S. and 486 internationally.

Key Products and Services

Software Applications

CONTROL™--A portfolio of business applications that supports the complete business cycle of companies manufacturing and repairing highly engineered products.

- CONTROL is based on an open client/server architecture, combining a graphical user interface and multiple database support.
- CONTROL is available on leading UNIX platforms, including Hewlett-Packard, Digital Equipment, and IBM RISC System/6000 and System/390 Parallel Servers.
- CONTROL is an enterprise management software suite organized around business planning, prospecting, proposing, order management procurement, manufacturing, delivery, and service and support processes.
 - CONTROL:Acquire™, Cincom's latest suite of enterprise management software products, is a suite of software products that supports bidding activities.

TOTAL FrameWork™--An application development tool introduced in December 1995, that combines an object-relational database, object-oriented applications assembly tools, and workflow automation.

- All components are designed on an open and extendible architecture, allowing the integration of existing applications and tools into TOTAL FrameWork.
- All components are integrated through Microsoft's OLE/COM, allowing any OLE-compliant tools to use a id be integrated into TOTAL FrameWork.
- TOTAL FrameWork combines workflow automation with component-based application assembly and data integration.
 - WorkFlow FrameWork™
 - Assembly FrameWork™
 - Persistence FrameWork™

AuroraDS™--Client/server document system allowing production automation for the insurance, financial, and utilities industries, as well as government agencies.

- AuroraDS allow users to create, produce, assemble, and print documents at the client location or remotely, on their own local network or through a host mainframe or UNIX system.
- AuroraDS, marketed internationally, is installed in over 800 organizations worldwide.
- AuroraDS also provides access to data and documents, archiving, production, and printing on existing host systems.
 - AuroraDS Host/UNIX
 - (MANAGE/Series™)
 - Text (M/Text™)
 - Spell (M/Spell™)
 - Graph (M/Graph™)
 - Archive (M/Archive™)
 - PrintManager (M/PrintManager™)
 - Host Adaptor (not UNIX)
 - AuroraDS Workstation
 - Designer

- Customizer
- Power Writer
- Document Assembly Server
- Workstation Adaptor

Other Technologies

Database Management Systems--Cincom's SUPRA® Server is an SQL-based, relational client/server database that runs across all platforms, from the largest MVS/ESA mainframe to VSA, Digital, Hewlett-Packard, UNIX, and the PC.

Application Development--Cincom's Application Generation System, AD/Advantage® is an integrated, interactive environment that automates development activities throughout the application development life cycle.

Clients

A sample list of Cincom clients is shown in the exhibit on the following page.

Marketing and Sales

Cincom markets its products in the U.S. through a direct sales force.

Independent agents market Cincom's products in Argentina, Chile, Colombia, Ecuador, Finland, Greece, Guatemala, Indonesia, Israel, Italy, Korea, Malaysia, Mexico, Panama, Peru, the Philippines, Portugal, Saudi Arabia, South Africa, Spain, Taiwan, Thailand, Turkey, Uruguay, Venezuela, and Yugoslavia.

Alliances

In March 1996, Cincom and IBM announced a strategic global partnership to deliver manufacturing solutions to joint customers worldwide.

- This partnership is comprised of technology, service, and marketing initiatives targeted to IBM customers implementing Cincom's Enterprise Resource Planning (ERP) software, CONTROL™.

Cincom's recent partnership agreements with organizations around the world include:

Belgium--CIMAD and CAP VOLMAC
France--Arche 2 and Klee
Germany--Better Office, C.O.M., Jung Electronic, and Object Leaders
Northern Europe--Enator
Canada--Mark Winter Associates
U.K.--Salamander
U.S.--Action Technologies, Semaphore, Syrinx, and VMARK
India--Advanced Synergic Microsystems and HCL-Hewlett-Packard
Thailand--Copyright Corporation
Malaysia--Uniphoenix Technology and Guthrie Solutions

INPUT Assessment

Cincom considers its strengths to include:

- Twenty-eight years of software experience
- Worldwide presence and support
- Technologically advanced solutions

Challenges facing the company over the coming year include:

- Expanding distribution channels
- Managing growth in new markets

Exhibit
Cincom Systems, Inc.
Client List

3M	Dowty Aerospace	Nelco-Jamesbury
Aerofjet Electro Systems	DuPont	Nestle K.K.
Aerospatiale	Ericsson	Northwestern Mutual Life Insurance
Aetna Life Insurance Company	Ethicon	Norwich Union Life Insurance
Airbus Service Company, Inc.	Fairchild Fasteners	Oerlikon Aerospace, Inc.
Alcatel	Ferrero	Ohio Edison
Alcoa Composites, Inc.	Fiat	Ohio University
Allstate Insurance	Fleetguard, Inc.	ORGANON
Altos Hornos de Mexico S.A.	Fleischmann	OTIS
American Express Travel-Related Services	General American Life Insurance	Parke-Davis
American General	General Dynamics	Philips Electronics
American Health & Life Insurance	General Electric Corporation	Prudential Insurance Property and Casualty
American Heritage Life Insurance	Goodyear	PSA - Peugeot
American Standard	Grumman Data Systems	Public Employees Retirement System
Amex Life Insurance Company	H.J. Heinz Company Ltd.	Reader's Digest
Amherst College	Hallmark	Renault
Anheuser-Busch	Helsinki University Central Hospital	Rockwell International
Atlanta Gas Light Company	Hershey Foods Corporation	Rolls-Royce
Australian Submarine Corporation	Hill-Rom Company, Inc.	Rosyth Royal Dockyard
Banc One	Hitachi Semiconductor	Sanyo Electric
Barclays Bank	Honda	Security First Group
Benetton	Honeywell	Sharp Electronics
BF Goodrich	ICI Plc	Siemens-Plessey
BMW/Rolls-Royce	Ingersoll-Rand	Social Security Administration
Boeing	Johnson & Johnson	Standard Elektrik Lorenz
British Petroleum	Kraft General Foods	Tel Aviv University
British Steel Plc	Lucas Aerospace Magnavox	Trane Company
BT Industries	Martin-Baker	United Distillers
Canadian Department of National Defense	Massey-Ferguson	USG Annuity & Life
Carleton Technologies, Inc.	MasterCard International	U.S. Department of Labor
Carolina Power and Light	May Clinic	Vickers
Caterpillar Champion International	McDonnell Douglas	Wagstaff Engineering
Ciba Geigy	Mead Corporation	Warner Robbins Air Force Base
Citicorp	Mercedes Benz	Westinghouse
Coca-Cola	Messier-Bugati	Wells Manufacturing
Columbus Life Insurance Company	Michelin	World Financial Network National Bank
Consumers Life Insurance Company	Mitsubishi	Xerox
Crawford Fitting Company	Moet & Chandon	Yamaha
Department of Navy-FMSO	Monsanto	Zeneca Pharmaceuticals
	Nabisco	Zenith Insurance
	National Science Foundation	

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CMG Ltd.

New
Search

UPDATED:
03/01/1997

Headquarters

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United Kingdom

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Fax: +44 171 222 8792

Summary Info

Chairman: Cor Stutterheim
CEO: Gerald Lucassen
Status: Limited
Employees: 3,500 (12/1996)
Revenue: \$ 385.0 mil
Revenue (ú mil): 245.2

Year End Dec-1996

Capability Profiles

CAPABILITY	REGION
Intranet Development	U.K.
SAP Services	U.K.

Key Points

- A major independent professional services vendor
- Owned by its employees, which has helped to avoid unwelcome takeovers
- Operates in the Netherlands, the U.K. and more recently Germany
- Strong 14% revenue growth in 1994
- Increased margins and profit up 59% in 1994
- Plans to seek more funding through a public share offering.

Company Description

Founded in 1964, CMG has expanded consistently, and is now one of Europe's major independent service organisations. It provides system integration, management and IT consultancy, software development, business systems, facilities management, share registration and human resource systems.

Exhibit 1**CMG Subsidiaries 1994****UK**

- CMG Computer Management Group (UK) Limited

Germany

- CMG Computer Management Group GmbH

The Netherlands

- CMG Computer Management Group BV
- CMG Bederland BV
- CMG Bedrijfsinformatiesystemen BV

- CMG Computercentrum BV
- CMG Den Haag BV
- CMG Application Services BV
- CMG Finance BV
- CMG Finance 2 BV
- CMG Informatietechniek BV
- CMG Informatieverwerking BV
- CMG Management Consulting BV
- CMG Noord-Nederland BV
- CMG Telecommunications and Utilities BV
- CMG Personeelssystemen BV
- CMG Trade, Transport and Industry BV
- CMG Utrecht BV

Source: CMG

It specialises in specific industries, including government, local government, utilities, insurance, banking, oil and gas, manufacturing and retail. Its revenues arise mainly in the Netherlands (64%) and the U.K. (29%) It also operates in Germany.

In order to achieve the financial credibility and access to funds necessary for growth, it plans to seek a listing on the London and Amsterdam Stock Exchange. The targeted time is the end of 1995.

Most staff are shareholders in the company.

Exhibit 2

CMG Five-Year Financial Summary (FYE 31-12) (£ millions)

Year	1990	1991	1992	1993	1994
Revenues	96.5	101.0	107.9	128.8	146.3
Annual Growth Rate(%)	19	5	7	19	14
Profits before Taxes	8.7	8.9	8.7	11.1	13.8
Profit after Taxes	5.2	5.4	5.3	5.4	8.1
Revenue per Employee	0.065	0.065	0.066	0.073	0.076

Source: CMG

Operations and Structure

Currently, CMG has 1,844 shareholders, of which more than 1,000 are current employees.

Exhibit 1 shows CMG's subsidiaries of which CMG Limited holds, directly or indirectly, 100% of the issued share capital.

At the end of 1992, CMG restructured its UK operations with divisions to serve its key vertical markets.

Company Strategy

CMG's objectives are:

- To obtain a London Stock Exchange listing
- To offer a systems integration approach linking strategy, operations, processes and people using IT as the enabler of business change
- To provide high-quality professional information consultancy and information processing services to large and medium-sized businesses, government, public utilities and non-profit organisations.
- To remain a major player in the U.K. Share Registration market.
- To specialise in major market sectors and be able to provide a full IT service, from strategy planning to software delivery, including package selection, bespoke software development, project management, and systems integration
- To retain fundamental policies of equal opportunities, fairness, openness, maximum communication and business ethics
- To remain a total quality organisation.

Financials

Exhibit 2 shows CMG's five-year financial summary.

Exhibit 3

**CMG Revenues by Delivery Mode,
1994 (\$ Millions)**

Delivery Mode	Revenues in \$ Millions	Share (%)
Application Software Products	10	4%
Professional Services	118	53%
Systems Integration	37	17%
Systems Operations	10	4%
Network Services	5	2%
Processing Services	34	15%
Total Software and Services	124	96%
Non IT-related Revenue	10	4%
Total European Revenue	224	100%

Source: INPUT Estimates
Percentages are rounded

Market Analysis

Exhibit 3 provides CMG's revenues analysed by delivery mode.

Exhibit 4 shows CMG's revenue analysed by industry sector.

Exhibit 4

CMG European Revenues by Industry Sector 1994 (\$ Millions)

Industry Sector	Revenues in \$ Millions	Share (%)
-----------------	----------------------------	--------------

Discrete Manufacturing	15	7%
Process Manufacturing	30	14%
Transportation	15	7%
Retail Distribution	5	2%
Wholesale Distribution	5	2%
Utilities	14	7%
Banking and Finance	50	23%
Insurance	15	7%
Health Services	5	2%
Government	40	19%
Business Services	20	9%
Total Software and Services	214	100%

Source: INPUT Estimates
Percentages are rounded

Exhibit 5

CMG Revenues by Country, 1994 (\$ Millions)

Country	Revenues in \$ Millions	Share
The Netherlands	134	63%
UK	65	30%
Germany	15	7%
Total Software and Services	214	100%

Source: INPUT Estimates
Percentages are rounded

Geographic Markets

Exhibit 5 shows CMG's software and services revenue by country

Acquisitions / Divestitures

1993

- In June, Strata Business Systems Ltd and its insurance software package IMACS were acquired
- In July, the information consultancy activities of Management Share in the Netherlands were acquired.

1994

- In November, the rights to FSS, a software package designed for independent financial advisors, were acquired through the acquisition of the share capital of Redcliffe Associates Limited and part of the business of Redcliffe Associates Systems Marketing Limited for a total of £851,000
- In February 1995, CMG signed an agreement to purchase PECOM, a group of related companies located in Germany which supply computer consultancy services to the finance and industry markets. The initial consideration for this acquisition is DM12 million. In addition to further DM6 million is payable in 1996, depending on PECOM's 1995 results.

Exhibit 6

CMG
Five-Year Summary- Human Resources

Country	1990	1991	1992	1993	1994
Headcount	1,575	1,549	1,637	1,771	1,933
Revenue per Employee \$ Million	0.094	0.100	0.101	0.112	0.117

Source: CMG/INPUT

Exhibit 7

CMG
Employees by Country 1994

Country	Headcount	Share
The Netherlands	1,206	62%
UK	612	32%
Germany	115	6%

Source: CMG/INPUT

Since its inception, CMG has actively pursued a policy of involving employees at all levels throughout the group by equity participation and awareness of financial performance and business ethics.

CMG's geographic coverage by number of employees is shown in Exhibit 7.

Key Products and Services

Professional Services

CMG consultants cover all phases of the project life cycle, from setting business objectives through system design and development.

It has developed its own methodologies and frameworks to enable it to offer effective services.

Software Products

These include:

- *Payfact 2000* — a personnel and payroll package used in Dutch and U.K. processing centres
- *Fact 2000* — a financial accounting package
- *Share Registration* — a service to administer all aspects of the share registration business
- *IMACS* — a London market underwriting and accounting package
- *Bank of England Reporting Suite* for strategy reporting by banks to the Bank of England
- *INFOBASE* — information management for charities, associations and membership institutions
- *TIA* — a direct insurance package.

CMG also provides customised solutions. Software packages are often used as base products and are tailored to individual client needs.

Industry Knowledge

CMG targets specific industry sectors, notably:

- *Finance* — CMG's specialist businesses operate in all the major financial centres of the U.K. the Netherlands and Germany. These businesses cover all aspects of banking, insurance, securities and building societies
- *Public Sector* — Targeted clients are central and local governments, schools, social security, health care and utilities. CMG is a leading supplier of geographic information systems (GIS's), particularly in the Netherlands
- *Petrochemicals, Retail, Transport and Distribution* — The company's expertise includes advanced manufacturing aids, warehousing, transportation and freight forwarding
- *Associations and Charities* — In the U.K. CMG provides packaged systems and consultancy to many of the country's professional and charitable organisations.

Processing Services

CMG has several processing centres in the Netherlands and the U.K. mainly offering payroll services. CMG has concentrated on payroll over many years. Its bureau-based and in-house systems have achieved a significant share of the European market.

CMG offers value-added network services (VANS) which include:

- *Orderline* — a service specifically for importers, suppliers and manufacturers who sell their services through a dealer network. It allows users to order directly from a supplier via CMG
- *Carline* — for car dealers to order stock
- CMG also operates, on behalf of Telekurs, an information service providing stock exchange information to clients in the Netherlands
- *Kluwitel* — a new service available to Wolters Kluwer publishers
- *Citibank/Diners Club* — a clearing system for Diners Club agents
- CMG handles the yellow pages/home shopping network.

Systems Operations and Systems Integration

CMG offers the option to manage clients' payroll and general processing systems in-house.

CMG provides a full range of services to facility manage the clients' total system or the software

alone.

In 1991 CMG won a number of systems operations contracts, most notably from BP Petroleum, worth £25 million over a five-year period.

Clients

CMG quotes, among other, the following references:

- *Share Registration* clients include BP Grand Metropolitan, Guinness, Legal and General Group
- *Payroll and Personnel* clients include KLM and Unigates Dairies, among hundreds of users
- *Public Sector* clients include the Dutch Ministry of Defence (payroll for 120,000) and the U.K. Home Office (procurement advice on automated fingerprint system).
- *Finance Sector* clients include Delta Lloyd (IMACS/400 system for reinsurers), Kleinwort Benson and TSB Bank (Central Bank Reporting Architecture)
- *Oil and Gas* clients include Chevron UK (strategic advice on multi-field integration) and the International Petroleum Exchange of London (feasibility study on trade matching and clearing systems)
- *Transport Sector* clients include Eurotunnel (payroll/personnel system) and London Underground (business processing re-engineering consultancy)
- *Utility* clients include the U.K. Royal Mail (information strategy plan and package selection advice) and Swalec (assistance with the specification and recommendation of a new management system)
- Charities and Associations include the National Trust (membership registration) the Children's Society, Lepira and Greenpeace.

INPUT Assessment

CMG's main strengths are that it is a well-established vendor in its main areas of activity and that it has expertise in the industry sectors in which it operates.

CMG has a reputation as a quality vendor in a market where quality is highly valued. CMG has a BS 5750/ISO 9001.

CMG's main weakness is its lack of European presence outside the U.K., Netherlands and Germany. However, the company now appears to be addressing this company now appears to be addressing this lack, and is actively seeking a stock market listing to support its European expansion strategy. CMG plans to acquire organisations complementary to its existing businesses.

CMG is a well established vendor in the U.K. and a market leader in the payroll and financial services markets. It has a presence in Germany. In the Netherlands, where 63% of its revenue arises, it is a leading supplier to the Dutch government. The company realises that in the long term, to compete successfully with the growing number of pan-European vendors, it will need to expand.

CMG has always provided itself on being a private company with almost 100% of its equity owned by employees. This is said to motivate staff to provide consistent, high-quality service to clients.

The challenge for CMG, as a public company, will be to retain a company culture which has made it successful and which it sees as unique. As a public company it will have to be less open with information that it now shares with its people. It will also need to open itself to integrate foreign acquisitions.

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Comdisco Disaster Recovery Services

New Search

UPDATED:
09/01/1996

Headquarters

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(847) 518-5440

Company Web Site:
<http://www.comdisco.com>

Summary Info

President: Nicholas K. Pontikes
Status: Division
Parent: Comdisco, Inc.
Employees: 800 (08/1996)
Revenue: \$ 267.0 mil
Year End Sep-1995

Capability Profiles

CAPABILITY	REGION
Business Continuity Services	U.K.
Federal Y2K Solutions	U.S.

Key Points

- Comdisco Disaster Recovery Services is a leading global provider of business continuity services.
- In March 1996, the company acquired the customer contracts for CSC CompuSource's alternate facility (hotsite), check processing, and mobile recovery services, extending Comdisco's recovery product set.
- During 1996, Comdisco Disaster Recovery Services has opened business/Workarea Recovery facilities in Seattle, Charlotte, Orlando, Phoenix (11/96), Victoria, and Vancouver and significantly expanded other sites. The additions expand the company's commitment to Workarea Recovery Solutions® and the evolving business continuity needs across all platforms.
- In May 1996, Comdisco announced a relationship with Deutsche Telekom to open disaster recovery facilities in Germany.

Company Description

Comdisco Disaster Recovery Services, founded in 1980, provides business continuity services, specializing in end-to-end recovery. The company has more than 3,200 customers worldwide.

- These services include emergency data processing backup, principally for large system users of IBM and compatible equipment; business (end user) recovery, including work area and voice recovery capabilities; and consulting services in business continuity planning, network services, and data protection throughout the U.S., Canada, and Europe.
- The company also provides backup capabilities for users of AT&T, Digital, FileNet, Hewlett-Packard, Hitachi, IBM, Pyramid, Stratus, Sun, Tandem, and Unisys equipment.
- To date, Comdisco Disaster Recovery Services has supported 249 recoveries worldwide. Disaster declarations occurred as a result of equipment and business outages, fires, floods, and hurricanes.

Comdisco Disaster Recovery Services operates as a division of Comdisco, Inc. a publicly traded, \$2.2 billion technology services company headquartered in Rosemont (IL) that leases and remarkets computers and other high-technology equipment, provides technology planning and asset management services, business continuity services, systems integration, and network services.

Organization and Structure

Comdisco Disaster Recovery Services is headquartered in Rosemont (IL) and has a total of 32 recovery facilities worldwide.

Of Comdisco's 32 locations, eight serve as major data center recovery environments providing extensive hot site and/or shell site services.

- These eight regional recovery centers serve major commercial centers, including New York, Chicago, Northern

- California, Texas, Toronto, London, and Paris.
- Each recovery center can support multiple customers simultaneously and includes telecommunications capabilities, conference rooms, office space, support areas, and appropriate on-site technical personnel.

Workarea Recovery centers are located adjacent to each computer recovery center as well as in other sites. Comdisco's recovery facility locations are as follows:

- Arlington (VA)
- Atlanta (Smyrna, GA)
- Baltimore/Washington (Columbia, MD)
- Boston (Waltham, MA)
- Calgary (Calgary AB)
- Charlotte (Huntersville, NC)
- Chicago (Rosemont, IL)
- Chicago (Wood Dale, IL)
- Dallas (Grand Prairie, TX)
- Denver (Englewood, CO)
- Detroit (Farmington Hills, MI)
- Indianapolis (Indianapolis, IN)
- Los Angeles (Cypress, CA)
- Minneapolis/St. Paul (Minnetonka, MN)
- Montreal (Montreal QB)
- New York/New Jersey (Carlstadt, NJ)
- New York/New Jersey (East Rutherford, NJ)
- New York/New Jersey (North Bergen, NJ)
- Orlando (Winter Haven, FL)
- Philadelphia (Bridgeport, NJ)
- Phoenix (Tempe, AZ)
- San Francisco (San Ramon, CA)
- Seattle (Renton, WA)
- St. Louis (St. Louis, MO)
- Toronto (Mississauga, ON)
- Vancouver (Vancouver, BC)
- Victoria (Victoria, BC)

Outside of North America, Comdisco Disaster Recovery Services has facilities in London, Warrington, Coventry, and Isleworth (England) and Paris (Ageris International, S.A.), with plans to open facilities in Germany in the fall of 1996.

Computer Hardware

Comdisco's computer recovery facilities are equipped with various AT&T, Digital, FileNet, Hewlett-Packard, Hitachi, IBM, Pyramid, Stratus, Sun, Tandem, and Unisys systems as follows:

- Large systems/mainframes: IBM ES/9000, 3090; Hitachi
- Midrange/distributed systems: IBM AS/400, RS/6000; Digital Alpha and VAX; Tandem K20000, Himalaya, Cyclone, and VLX; HP 9000; Unisys 2200/500; Stratus; Sun; AT&T; Pyramid; FileNet
- PC/LAN servers

Advanced Recovery Services (vaulting, journaling, database shadowing, mirroring) are available on all mainframe and midrange/distributed platforms.

Company Strategy

Comdisco Disaster Recovery Services' mission is to deliver integrated solutions that minimize risk by enabling businesses to protect and recreate the flow of information quickly and cost effectively.

During 1994, Comdisco Disaster Recovery Services announced its Project 2000 growth and technology initiative to leverage investments to stimulate growth while continuing to improve margins and customer satisfaction. The program represents \$300 million in investments through the year 2000 to serve customers' evolving business continuity needs across all platforms.

Specific elements of Comdisco Disaster Recovery Services' strategy include:

- Developing a mainframe backup capability responsive to huge data centers created by mergers, acquisitions, and outsourcing trends
- Expanding network services beyond SNA, frame relay, ATM to address application recovery
- Maintaining industry-leading role in distributed/open systems recovery
- Continuing to assist companies in developing and implementing end-to-end recovery strategies

Financials

Comdisco Disaster Recovery Services' fiscal 1995 revenue reached \$267 million, a 10% increase over fiscal 1994 revenue of \$242 million.

A five-year financial summary is shown on the following page.

Revenue growth in fiscal 1994 and 1995 was primarily the result of the growth in the customer base, products, and services.

Comdisco Disaster Recovery Services management anticipates fiscal 1996 revenue will reach \$290 million, with pretax profits of \$37 million.

Comdisco Disaster Recovery Services Five-Year Revenue Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	9/95	9/94	9/93	9/92	9/91
Revenue	\$267	\$242	\$216	\$193	\$150
<ul style="list-style-type: none"> • Percent change from previous year 	10%	12%	12%	29%	27%
Pretax earnings	\$29	\$18	\$10	\$18	\$18

Interim Results

Revenue for the nine months ending June 30, 1996 reached \$231 million, a 17% increase over \$197 million for the same period a year ago.

- Pretax earnings were \$30 million, up from \$21 million for the same period a year ago.
- The results for this year include the operations of the network services business of NetforceMTI, which was acquired by Comdisco in December 1995.

Market Financials

Comdisco Disaster Recovery Services' revenue derived from clients in various industries. It is estimated fiscal 1995 revenue was derived approximately as follows:

Manufacturing	29%
Banking	23%
Retail/wholesale	10%
Insurance	10%
Utilities	4%
Financial services	3%
Government and education	2%
Communications	2%
Other services	17%

100%

Clients range from mid-sized companies to Fortune 50 firms with global mainframe/distributed system installations and critical usage requirements.

Geographic Markets

Approximately 82% of Comdisco Disaster Recovery Services' fiscal 1995 revenue was derived from the U.S., 12% from Europe, and the remaining 6% from Canada.

A three-year summary of geographic sources of revenue is shown on the following page.

Comdisco Disaster Recovery Services
Three-Year Geographic Source of Revenue Summary
 (\$ Millions)

Geographic Market	Fiscal Year					
	9/95		9/94		9/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$219	82%	\$201	83%	\$171	79%
Europe	33	12%	25	10%	29	13%
Canada	15	6%	16	7%	16	7%
Total (a)	\$267	100%	\$242	100%	\$216	100%

(a) Differences due to rounding.

Acquisitions

In March 1996, Comdisco Disaster Recovery Services acquired the assets and contracts of the disaster recovery division of CSC CompuSource, a unit of Computer Sciences Corporation (CSC).

- Under the agreement, Comdisco Disaster Recovery Services acquired customer contracts for CSC CompuSource's alternate facility (hotsite) recovery services, check processing recovery services, Provident mobile recovery, and related assets.
- CSC CompuSource, based in Cary (NC), served the disaster recovery and mobile recovery services market, specializing in low-end IBM mainframe recovery.
- Comdisco gained more than a dozen operations and sales employees from CSC CompuSource along with facilities in Norcross (GA), Tewksbury (MA), and Niles (OH).
- In a separate agreement, Comdisco Disaster Recovery Services was awarded contracts to provide disaster recovery services for CSC's North American facilities.

In December 1995, Comdisco acquired NetforceMTI of Minneapolis (MN). Financial terms were not disclosed.

- NetforceMTI was a privately held communications network services company that provides network assessment, design, planning, implementation, configuration, installation, and management services. In addition to its headquarters location, the company also has offices in Chicago, Cleveland, Des Moines, and Washington, D.C.
- NetforceMTI had approximately 60 employees at the time of the acquisition and revenue of \$20 million for the fiscal year ending October 31, 1995.
- The operations of Netforce have been merged into Comdisco's newly formed Comdisco Network Services division, headed by Mark Johnson, founder and CEO of NetforceMTI, reporting to Comdisco Disaster Recovery Services president, Nicholas K. Pontikes.

Employees

Comdisco Disaster Recovery Services currently has approximately 800 employees, including approximately 150 international employees.

Key Products and Services

Key Products and Services

Disaster Recovery

Comdisco Disaster Recovery Services provides business continuity services for the data center and for individual business departments and the corporation as a whole. The company has a total of 5,690 remote recovery seats, as follows:

Emergency response	3,245
Business recovery	<u>2,445</u>
	5,690

As of September 1996, Comdisco Disaster Recovery Services had approximately 3,200 subscribers worldwide.

Comdisco's disaster recovery facilities are linked via CDRS Net®, the company's private, high-speed fiber backbone network.

- Telecommunications capabilities include SONET-based services, ATM switching, VSAT hubs, Accunet reserved T1.5 services, and NTI Meridian 1 PBX.
- Through CDRS Net, the company offers customers access to its North American facilities, including a range of data processing recovery services at hot sites, Customer Control Centers, and shell sites.
- Hot sites are equipped computer facilities that include central processing units, peripherals, and communications equipment.
- A Customer Control Center interfaces customers to geographically separated hot sites by means of network infrastructure.
- All facilities also include workarea, voice, and network capabilities. Capabilities also include client/server platforms and midrange systems.

Recovery services are segmented as follows:

- **Large site** processing recovery facilities includes System Center 2000 in North Bergen (NJ), a 166,000 square foot facility with 1,686 MIPS of processing power and 6.5 terabytes of storage capacity. Comdisco Disaster Recovery Services offers recovery solutions for all large systems technologies and provides staff support for all high-end systems, including IBM ES/9000 and S/390, as well as Unisys, Amdahl, and Hitachi systems.
- **Server recovery** solutions are specifically designed for distributed server environments. Recovery sites provide multiple Customer Control Centers and connectivity between vendor systems for complete integrated recovery capabilities.
 - Interoperability and network connectivity with other Comdisco Disaster Recovery Services facilities provide local access, maximum flexibility, and redundancy.
 - Full telecommunications capabilities, from SONET-based services to ATM switching to VSAT technology, support transparent recovery for all types of distributed architectures, including IBM AS/400 and iS/6000, Digital VAX and Alpha, Tandem, Stratus, Hewlett-Packard, Pyramid, AT&T, Sun, and other UNIX and Intel-based systems.
- **Workarea Recovery Solutions** allow customers to relocate key personnel at a Comdisco Disaster Recovery Services Workarea Recovery Center and continue business operations in the event of a disruption. Equipment options include PC/servers, PC/LAN stations, and communications networks providing access to the technology and data they need to carry on with business as usual.
 - A typical Comdisco Disaster Recovery Services work area room is equipped with prewired workstations, data terminals and PCs, telecommunications capabilities, server rooms with print and tape capabilities, and a flex-connect hub for voice and data connectivity.
 - Voice Recovery—A typical center contains all equipment needed to re-establish voice communications, including multibutton phonesets, local trunk access for outbound and inbound calling, dedicated inbound 800 number service lines, and a PBX system.
 - PC/Workstations—Comdisco-supplied PCs include Token Ring or Ethernet LAN connections.
 - Platforms—Comdisco Disaster Recovery Services can accommodate platforms and data terminals to match a client's working environment, such as AS/400, Hewlett-Packard, Digital, or IBM 3270.
 - Server Room—A custom-designed room with ServerBays, LAN Administrator Stations, telephone and device connectivity, and tape capabilities for recovering LAN server equipment.
 - Flex-Connect Hub—A Comdisco wiring and interconnect system for flexible configuration of voice and data connectivity.
 - Workarea Recovery Centers also offer on-site access to conference rooms and canteens in a secured environment 24-hours, 7 days-a-week.
- **Network recovery** is supported through CDRS Net, the company's global telecommunications network linking all of Comdisco's recovery centers.

Comdisco's Millennium Testing Services allow users or their service providers undergoing Year 2000 conversions to recreate systems in one of the company's North American recovery facilities and test the converted code in a fully loaded environment.

systems in one of the company's North American recovery facilities and test the converted code in a fully loaded environment.

- Three categories of services are provided including qualification tests (assessing the scope of the conversion process), checkpoint tests (status checks throughout the process), and validation tests (once the conversion process is complete).
- The service supports a range of platforms, including IBM mainframes, Unisys, AS/400, RS/6000, Tandem, Digital VAX and Alpha, Stratus, Hewlett-Packard, Pyramid, and Sun Microsystems.

Contracts for business continuity services generally range from two to five years, with a majority of the clients having five-year contracts. Pricing is based on the customer's hardware and configuration requirements.

Professional Services

Comdisco Disaster Recovery Services has approximately 125 consultants dedicated to providing professional services to business continuity clients.

Business Continuity Lifecycle Services include the following services:

- **Capability Benchmark:** Assessment of a client's business continuity program, including their organization, skills, management processes, business exposures, recovery strategy and plans, testing, and continuous improvement.
- **Business Vulnerability Analysis:** Assessment of critical business exposures resulting from a disaster, identification of vulnerabilities in a client's technology infrastructure, and the business processes and information flow enabled by that infrastructure.
- **Recovery Strategy Design:** Assistance with the design and implementation of strategies for recovering critical resources (work areas, data centers, networks, and distributed systems), as well as the applications and information that flow across those resources.
- **Recovery Plan Development:** Design and development of concise, action-oriented plans and the teams necessary to respond to and recover from a disaster.
- **Smart Test Support Services:** Assessment of the cost, quality, and effectiveness of current testing program; as well as providing ongoing test support.
- **Continuous Improvement Services:** Ongoing management of recovery plans, including updated plan documents, recommendations for improvements, and quality assurance.

Enterprise Recovery Management Services include:

- **SelectSourcingSM:** Permits customers to select which of CDRS' services are required.
- **Process Improvement and Knowledge Network:** Development of a repository of well-defined, repeatable processes and tools for building more effective business continuity programs.
- **Benchmarking Business Continuity:** Ongoing comparisons of clients' business continuity program to similar organizations' programs, facilitating the continuing improvement process and ensuring costs are in line with industry norms.

Comdisco Disaster Recovery Services also offers ComPAS®, a Windows-based business recovery planning software tool that guides customers through a step-by-step process of developing, testing, and implementing integrated continuity plans.

In July 1996, Comdisco announced it is developing a Lotus Notes-based recovery planning product in conjunction with Paragon Bermuda, Ltd. and United System Solutions. The new product, Continue™ for Lotus Notes, is based on ComPAS and provides Notes users with a planning tool for developing an end-to-end recovery solution.

Other

Mobile Recovery Operations Center (COMROC) is a modular, transportable cold site that can be assembled at a customer's location in 7 to 23 days.

- The units come complete with raised flooring security systems, and other critical data center equipment, and can replace an unavailable data center or provide a useable space for a range of corporate functions.
- COMROC ranges in size from 1,200 to 9,600 square feet and was designed for customers in need of long-term recovery environments.

Comdisco Disaster Recovery Services also provides SAP recovery/consulting services and to date has supported eight recoveries.

Advanced Recovery Services allow client organizations to backup their systems or database transaction data to a Comdisco site via CDRS Net or a public network.

- Data recovery solutions for midrange and mainframe systems are offered, as well as solutions designed specifically for local-area networks, distributed, and open operating systems.
- Services include electronic vaulting, remote journaling, database shadowing, standby processing, standby DASD, and hot network nodes.
- With continuous availability services, Comdisco captures customer transaction data continuously and transmits it to a Comdisco Disaster Recovery Services recovery facility in real-time

The company also offers NetSaveSM, an automated backup, retrieval, and restore software package for LANs.

Marketing and Sales

Comdisco Disaster Recovery Services markets its services through a direct sales force.

Alliances

Comdisco Disaster Recovery Services has alliances with a range of vendors including BMC, Compaq, Computer Solutions, DataBase Filetech, Digital, EMC, E-Net, FileNet, Micro Age, Moore Business Products, Pyramid, Sterling Software, and Unisys.

In September 1996, Comdisco and VIASOFT announced they would jointly develop a testing guide that supports both the application- and system-level software test requirements associated with a year 2000 conversion. As part of this relationship, VIASOFT will be actively participating in Comdisco's Millennium Testing Services program.

In late 1995, Comdisco Disaster Recovery Services and EMC Corporation announced joint marketing of EMC's Symmetrix Remote Data Facility (SRDF) business continuance software. SRDF is designed to provide real-time copies of data between EMC's Symmetrix family of ICDA storage subsystems and enables Comdisco Disaster Recovery Services customers to mirror their critical data and applications from their home site to a Comdisco Disaster Recovery Services recovery facility

Competition

Comdisco Disaster Recovery Services' primary competitors include IBM ISSC and SunGard Data Systems.

The company also competes with various smaller regional firms in the U.S., Canada, and Europe.

Assessment

Comdisco Disaster Recovery Services' strengths include:

- Industry leadership in market share and experience
- Marketplace commitment
- Complete solutions set, including leveraging the parent company's technology, leasing, asset management, and network services product offerings

Challenges include helping customers address exposures from increased reliance on technology and the wide-spread distribution of technology.

Parent Company

Comdisco, Inc.
6111 North River Road
Rosemont, IL 60018
Phone: (847) 698-3000

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**Compression Labs, Incorporated****UPDATED:**
06/01/1996**Headquarters**2860 Junction Avenue
San Jose, CA 95134
U.S.**Phone:**
(408) 435-3000**Fax:**
(408) 922-5429**Summary Info**

Chairman:	Dr. Arthur G. Andersen
President/CEO:	T. Gary Trimm
Status:	Public
Employees:	317 (03/1996)
Revenue:	\$ 87.9 mil

Year End

Dec-1996

Key Points

- Compression Labs, Incorporated (CLI) provides desktop and group videoconferencing solutions for business, government, education, and health care organizations.
- In late 1995, CLI discontinued the operations of its Broadcast Division due to significant competition from larger companies with end-to-end product lines and extensive worldwide sales. The company recorded a charge against 1995 results from discontinued operations of \$36.5 million. CLI is actively seeking alternatives for this business either through its sale, partnership, or other agreement.
- In March 1996, CLI announced a major restructuring designed to simplify and reduce the size of the company, streamline processes, reduce expenses and product costs, and match its product offerings more closely to customer needs and market directions. The restructuring resulted in a reduction in the work force of approximately 90 employees and restructuring charges of \$11 million in the fourth quarter of 1995 and \$1.7 million in the first quarter of 1996.
- As part of the company's strategy to offer and integrate a range of video communications solutions to solve enterprise-wide business needs, CLI has introduced the CLI Desktop Video family.
- In February 1996, CLI announced the resignation of its chairman, president, and CEO, John E. Tyson. Gary Trimm, senior vice president, has been appointed president and CEO and Dr. Arthur G. Anderson, a director of CLI, was appointed chairman of the board.

Company Description

CLI, founded in 1976, develops, manufactures, and markets visual communication systems based on compressed digital video (CDV) technology.

- The company's systems use proprietary and industry-standard algorithms to compress the amount of data required to transmit digital video and audio signals, thereby significantly reducing the cost of transmitting these signals over terrestrial, microwave, cable, or satellite networks.
- CLI has sales offices across the U.S., with international offices in Asia and Europe, and distributors serving more than 50 countries worldwide.

In November 1995, CLI adopted a strategic plan to discontinue the operation of its Broadcast Division. This unit manufactures and sells broadcast video products to commercial users.

- Revenue from this division was approximately \$37 million, \$42 million, and \$46.2 million in 1995, 1994, and 1993, respectively.
- Discontinuing these operations was intended to help the company focus on providing television-quality videoconferencing products, especially at higher bandwidths.
- CLI has announced that it is in negotiations with an interested party regarding the potential sale of assets of this division.

Organization and Structure

In the first quarter of 1996, CLI decided to restructure the Videoconferencing Division in order to seek profitability and growth, resulting in the layoff of 90 employees and closing of several offices.

CLI is headquartered in San Jose (CA). Current North American sales offices are in Atlanta (GA), Itasca (IL), New York (NY), and Reston (VA).

Outside the U.S., CLI has sales offices in Beijing (China) and Belgium.

CLI's key executives are listed below.

CLI Key Executives

Name	Title
T. Gary Trimm	President and CEO
William A. Berry	CFO and SVP
Dr. Wen Chen	SVP Research and Chief Scientist
Ted S. Augustine	VP Sales, Videoconferencing Products
Anthony Pilarinos	VP Engineering, Videoconferencing Products
Steven E. Richardson	VP Marketing, Videoconferencing Products
Paul P. Romeo	VP Operations, Videoconferencing Products
James D. Lakin	VP, Sales and Marketing Broadcast Products

Company Strategy

CLI's strategy is to strengthen its position as a leading supplier of a range of "premium quality" group and desktop videoconferencing systems.

The company's strategy includes the following key elements:

- *Technology leadership* --CLI has pioneered video compression technology and continues to develop videoconferencing systems with enhanced picture and audio quality and features at lower costs.
- *Range of videoconferencing products* --CLI claims to have one of the broadest product lines in the videoconferencing industry, spanning a range of market applications and operating at transmission rates from 56 kbps to 2.048 mbps. CLI believes that supplying a range of products to satisfy a customer's complete video communication needs will be important to its future success.
- *Compliance with industry standards* --CLI believes that the adoption of industry standards will further the expansion of the worldwide videoconferencing market by allowing systems from different manufacturers to communicate with one another. CLI's Rembrandt II/VP, Radiance, *eclipse*, and CLI Desktop Video product families all conform with the TSS H.320 videoconferencing standard that allows communication with CLI and other vendors' products through industry-standard communication modes. The group systems provide a user-selectable option that allows enhanced video when communicating with other CLI systems through CLI's proprietary communication modes.

Financials

CLI's 1995 revenue from continuing operations was \$113 million, a 2% decrease from \$115 million in 1994.

- The decrease in revenue was primarily due to a decrease in videoconferencing unit volume, partially offset by higher average selling prices in the videoconferencing market and increased installation and maintenance revenue.
- Unit volume of CLI's codec products decreased 11% to 2,322 units in 1995 from 2,609 units in 1994.

Net losses were \$57.6 million in 1995, compared to net income of \$107,000 in 1994.

- Losses from continuing operations were \$21 million in 1995, compared to \$4.9 million in 1994. Losses were impacted by fourth-quarter charges of \$11 million for restructuring.
- Losses from discontinued operations were \$36.5 million in 1995, compared to net income from discontinued operations of \$5 million in 1994. The loss in 1995 includes charges of \$34.6 million for the write-down of assets associated with the Broadcast Division.

In the five-year summary on the following page, financials have been restated to reflect CLI's Broadcast Division as discontinued operations.

Compression Labs, Incorporated
Five-Year Financial Summary
(\$ Millions, except per share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$113.0	\$115.0	\$95.1	\$95.0	\$61.3
<ul style="list-style-type: none"> Percent change from previous year 	(2%)	21%	--	55%	N/A
Income (loss) from continuing operations	\$(21.0)	\$(4.9)	\$(12.2)	\$(3.4)	\$(17.9)
<ul style="list-style-type: none"> Percent change from previous year 	(331%)	60%	(256%)	81%	N/A
Income (loss) from discontinued operations	\$(36.5) (a)	\$5.0	\$8.7	\$0.1	\$2.8
Net income (loss)	\$(57.6)	\$0.1	\$(3.5)	\$(3.3)	\$(15.1)
<ul style="list-style-type: none"> Percent change from previous year 	(b) *	103%	(6%)	78%	N/A
Net earnings (loss) per share	\$(3.76)	\$0.01	\$(0.30)	\$(0.29)	\$(1.55)
<ul style="list-style-type: none"> Percent change from previous year 	*	103%	(38%)	81%	N/A

* Not meaningful.

(a) Includes charges of \$34.6 million related to discontinuing the operations of the Broadcast Division.

(b) Includes restructuring charges of \$11 million.

Total research and development expenditures, including capitalized software development costs, were \$14.8 million (13% of revenue) in 1995, \$15.1 million (13% of revenue) in 1994, and \$13.4 million (14% of revenue) in 1993.

Revenue Analysis by Product/Service

Approximately 67% of CLI's 1995 revenue was derived from its videoconferencing products and 33% from broadcast products.

Interim Results

Revenue from continuing operations for the three months ending March 31, 1996 was \$20 million, compared to \$27.9 million for the same period in 1995. Net losses were \$6.2 million, compared to losses of \$2.1 million for the same period a year ago.

- Revenue declines and losses were anticipated due to the restructuring actions taken in the quarter.
- Included in the losses is a \$1.7 million charge associated with the restructuring.
- Gross margins improved to 45% compared to 37% for the same period a year ago, reflecting continued product cost reduction for videoconferencing products.

Market Financials

CLI's products have been sold to organizations in such industries as aerospace, banking, communications, broadcasting, education, electronics, food and consumer products, and pharmaceuticals, as well as in government.

Geographic Markets

Approximately 78% of CLI's 1995 revenue was derived from the U.S. and 22% from international sources, primarily from customers located in East Asia, Australia, and Western Europe.

A three-year geographic summary of source of revenue is shown below.

Compression Labs, Incorporated
Three-Year Geographic Source of Revenue Summary
 (\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$88.7	78%	\$93.9	82%	\$82.7	87%
International	24.3	22%	21.1	18%	12.4	13%
Total	\$113.0	100%	\$115.0	100%	\$95.1	100%

Employees

As of February 29, 1996, CLI had 439 full-time employees in its continuing operations, segmented as follows:

Marketing and sales	158
Engineering, research, and development	94
Manufacturing	129
Administration	58
	439

As of February 29, 1996, CLI also employed 100 people full-time in its broadcast vision, which is reported as a discontinued operation.

In addition, CLI has a number of temporary employees.

Key Products and Services

Videoconferencing Products

CLI's videoconferencing systems offer two-way, full-color, motion videoconferencing at various bandwidths ranging from 56 kbps to 2.048 mbps.

- The systems enable the user to transmit video, audio, data, and graphics over digital channels.
- The principal component in CLI's videoconferencing systems is the codec. One codec is required at each conference site to perform both coding and decoding functions.
- System users can transmit the compressed signals over terrestrial, satellite, or microwave networks.
- CLI's videoconferencing products are used in point-to-point or multipoint videoconferences. In a point-to-point videoconference, audio and full-color motion images are transmitted simultaneously in both directions so that the participants at one site interact with the participants at the other site as in a normal meeting. In a multipoint conference, participants in three or more locations can interact with each location and are able to see and hear the participant who is speaking.
- CLI systems work in conjunction with both dedicated network facilities and a variety of switched network facilities.
- CLI's current installed base totals more than 13,000 codecs worldwide.

CLI offers a range of group and desktop videoconferencing products as follows:

- The Rembrandt II/VP large group video codec family, introduced in 1991, incorporates CLI's CDV technology. Its codecs address the entire spectrum of videoconferencing applications in a single product.
 - o The codecs support transmission rates ranging from 56 kbps to 2.048 mbps, support the CTX and CTX Plus proprietary algorithms, provide backward compatibility to CLI's older products, and support the H.261 standard.
 - o These systems range in price from \$35,000 to \$48,500, excluding options.
- The Radiance large group videoconferencing systems, first shipped in January 1994, are complete prepackaged large group systems that achieve up to 30 frames per second (fps) and 480 lines of resolution at bandwidths ranging from 56 kbps to 2.048 mbps.
 - o These systems come fully assembled for ease of installation, use, and maintenance, and use a tabletop touch panel based on CLI's Self-Guide™ user interface, which provides intuitive control via menus and icons to guide the user.
 - o The Radiance list prices range from \$43,400 to \$77,900, excluding options.
- *eclipse* midrange group videoconferencing systems, introduced in 1993, are complete, full-featured videoconferencing systems priced as low as \$14,900.
 - o The codec is housed in an Intel 486 personal computer chassis with both a hard disk and 3-1/2 inch floppy disk for software updates.
 - o In 1995, the *eclipse* product family was expanded to include various models ranging from tabletop to dual-monitor systems. The *eclipse gold*, introduced in 1996, offers improved video quality and a multimedia gateway.
 - o *eclipse* list prices range from \$14,900 to \$47,890, excluding options.
- CLI Desktop Video Systems, announced in January 1996, run on PCs powered by Intel Pentium microprocessors under Microsoft Windows 3.1 and Windows 95.
 - o This family of products will include two models: CLI Desktop Video 1000 and CLI Desktop Video 2000. These products are kits consisting of a fixed digital camera, a single codec board incorporating an ISDN basic rate interface, a telephone handset, and a choice of data collaboration software, including Intel's ProShare Premier data collaboration software. In the future, the product will also support DataBeam's FarSite data collaboration software.
 - o The CLI Desktop Video 1000 and 2000 models are capable of transmission speeds ranging from 56 kbps to 384 kbps.
 - o CLI Desktop Video list prices range from \$1,495 to \$2,195, excluding options.

CLI also offers the Multipoint 2 Control Unit (MCU), a device that allows people at multiple locations to participate in a fully interactive videoconference.

- During a multipoint videoconference, the MCU acts as an audio bridge and a controller, switching among different sites so participants can see the person who is speaking and hear all other participants in the conference.
- List prices for MCUs range from approximately \$26,500 for a three-user unit to approximately \$89,500 for a large system usable in a headquarters location, depending on the number of ports and options required.

Broadcast Products

CLI has discontinued the operations of its Broadcast Division. Products marketed through this unit through November 1995 included the following:

- The SpectrumSaver digital broadcast television system for business television, distance learning, satellite news gathering, and cable applications
- The Magnitude family of CLI broadcast video products for the delivery of entertainment and information services over telephone, cable, and satellite networks

Customer Service and Support

CLI provides service and support in more than 50 countries worldwide, either directly or in conjunction with its distributors, resellers, and contract service providers.

- CLI and its contract service providers typically provide support to all customers to which CLI sells direct.
- Customers who buy CLI products indirectly generally receive their primary level of support from CLI's resellers and supplemental support from CLI.
- All distributors, resellers, and service providers are trained by CLI to provide the appropriate level of service for CLI products.

CLI's service strategy for much of its product line is predicated on designing products with diagnostic capabilities and maintaining a toll-free customer support hotline staffed by technical support personnel who diagnose problems remotely. The

remote diagnostic capabilities of many of CLI's products often allow CLI technical support center personnel to service products without making on-site service visits.

To further augment CLI's service capabilities, CLI signed an agreement in late 1995 with AT&T under which AT&T will supply technicians who will provide installation and service for designated CLI videoconferencing customers throughout the U.S.

CLI provides installation and on-site service through regionally deployed technical support staff in select major cities or regional, national, or multinational third-party service providers. CLI offers a range of maintenance plans. Historically, maintenance revenue has accounted for less than 10% of total revenue.

Clients

A list of selected customers who have placed orders with CLI over the past two years is shown in the exhibit on the following page.

Exhibit Compression Labs, Incorporated Key Clients

Industry Market/Clients	Industry Market/Clients	Industry Market/Clients
Aerospace Hughes Aircraft Company Lockheed Corporation Loral Corporation Martin Marietta Corporation Rockwell International Corporation	Education Duke University Eastern Washington State Univ. Texas Tech University University of California University of Hawaii University of Idaho University of Massachusetts University of Missouri University of Nevada, Reno University of Pennsylvania University of Texas University of Washington Vermont Technical College Washington State University	Government NASA China Railway Import & Export Sichuan Provincial Import Corp. State of Florida State of Hawaii State of Kansas State of Washington U.S. Department of Defense U.S. Department of Energy U.S. Federal Emergency Management Agency (FEMA) U.S. General Accounting Office U.S. General Services Administration
Banking & Finance Bank of America Corporation Citibank, N.A. Citicorp MasterCard International, Inc. Visa Inc.	Electronics Advanced Micro Devices, Inc. Boeing Computer Services Harris Corporation Hewlett-Packard Company IBM Corporation Mentor Graphics Corporation MicroAge, Inc. Micron Technology, Inc. National Semiconductor Samsung Electronics Corporation, Ltd. Unisys Corporation Westinghouse Electric Corporation	Pharmaceutical & Health Care Glaxo Wellcome Columbia-HCA Healthcare Corp. Empire Blue Cross/Blue Shield Harvard Community Health Plan Pharmacy Corp. of America Schering-Plough Corporation UT Medical Branch at Galveston Warner-Lambert
Telecommunications Ameritech Services, Inc. American Telephone & Telegraph Bell Atlantic Bell Canada BellSouth Services, Inc. Comtelca Deutsche Telekom AG GTE Government Systems Hughes Network Systems JS TELECOM MCI Telecommunications Corp. Mitre Corporation NYNEX Corporation Nevada Bell Norstan Communications Pacific Bell SBC Communications (Southern Bell) Sprint/North Supply TIE/communications Williams Telecommunications, Inc.	Food/Consumer Products Black & Decker The Coca-Cola Company Kimberly Clark Corporation Nabisco Brands, Incorporated Nestle USA Nordstrom Phillips Van Heusen Williams Sonoma	Other Alcoa Fujikura Ltd. Boston Consulting Group Consolidated Edison KPMG Peat Marwick McKinsey & Co. Pacific Gas & Electric Toyota Motor Sales USA VF Corporation

Marketing and Sales/Alliances

CLI markets its videoconferencing systems to business, government, health care and education customers. These customers frequently have multiple domestic and/or international locations and often specify a single vendor to supply videoconferencing equipment on a worldwide basis.

In 1995, approximately 35% of CLI's revenue from videoconferencing products was from indirect sales channels, which include resellers and comarketers.

- CLI has comarketing agreements or arrangements with AT&T and MCI Communications. These comarketers provide sales leads and customer prospects for direct customer sales by CLI's domestic sales force.
- In addition, CLI has a number of reseller agreements in the U.S. with companies including Bell Atlantic, Norstan, TIE/communications, Inter-Tel Equipment Corporation, Pacific Bell, and Williams Telecommunications, Inc. (WilTel). These resellers sell CLI's videoconferencing products directly to users.
- CLI has also entered into distributor agreements with companies such as MicroAge and Sprint/North Supply.

Internationally, CLI markets its videoconferencing products in most countries outside the U.S. through distributors.

- Historically, a significant portion of CLI's sales have been to its existing customer base. CLI is attempting to increase its new-customer base by expanding its distribution channels.
- CLI's products are distributed in more than 50 countries outside the U.S. under distribution agreements and arrangements with more than 30 companies, including Internet Video Communications in the U.K., JS TELECOM (a subsidiary of Bosch Telekom) in France, Deutsche Telekom in Germany and worldwide, SOEI Tsusho Company Ltd. in Japan, Samsung in Korea, Teledata in Southeast Asia, and Keytech S.A. in South America.
- In May 1996, CLI announced an agreement with McDonnell Information Systems Pty Ltd. (MDIS) whereby MDIS will distribute and support CLI's group and desktop videoconferencing products in Australia and New Zealand.
- Agreements with these distributors generally provide for pricing and volume discounts, order lead times, designation of a specific geographic territory, and other terms and conditions.
- Distributors typically order products only upon receipt of an order from a user customer and generally provide local customer support, including installation and maintenance.

Broadcast products were distributed primarily through value-added resellers, which included satellite transponder owners, full-service integrators, systems integrators, and broadcast programmers who provide the user with a complete, installed digital satellite system. CLI has agreements in place with Westcott Communications, AT&T, EDS, Keytech S.A., Radiation Systems Incorporated, National Technological University, Vitacom, and others.

Competition

CLI believes that the market for videoconferencing systems ranges from applications for more formal meetings that require very high picture quality using higher bandwidths to applications such as informal meetings in which reduced picture quality at lower bandwidths is acceptable in return for significantly lower equipment and transmission costs.

At the higher bandwidths, CLI's major competitors include VTEL Corporation, General Plessey Telecommunications, and British Telecom.

At lower bandwidths, primary competitors include PictureTel Corporation and VTEL Corporation.

CLI expects other competitors to enter the videoconferencing market, such as Japanese manufacturers (Mitsubishi Ltd., Nippon Electric Corporation, Sony Corporation, Hitachi Limited, and Fujitsu Ltd.).

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CompuNet Computer AG

New Search

UPDATED:
08/01/1996

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Germany

Phone: +49 2273 5970 **Fax:** +49 2273 597 130

Company Web Site:
<http://www.cnb.compunet.de>

Summary Info

CEO: Josh Stollman
Status: Private
Employees: 1,256 (06/1995)
Revenue: \$ 774.0 mil
Revenue (DM mil): 1,161.0

Year End Jun-1995

Capability Profiles

CAPABILITY	REGION
Network Management and Support	Germany

Key Points

- Desktop equipment and support services vendor
- Generates \$774 million in annual revenues
- Part of the pan-European ICG Group to address cross-country support needs
- Increasing emphasis on the provision of support services rather than equipment provision.

Company Description

Founded in 1984 by Jost Stollmann as a hardware reseller, CompuNet Computer AG is now positioning itself as a supplier of services. Services currently account for 17% of its revenue and for 80% of its staffing.

CompuNet's services include the integration of system components, consulting, product support and warranty services. It claims to be the largest partner of IBM, Compaq and Toshiba in Germany. It focuses on large accounts.

The structure of the group is designed to leverage the business activities of local entrepreneurs and to allow for growth by acquisition (see below under Operations and Structure).

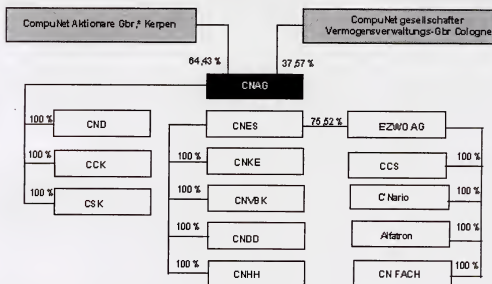
In 1989, CompuNet linked with Computacenter in the UK and Random in France to form International Computer Group B.V., Paris (ICG). ICG caters to clients needs for a consistent pan-European service. ICG now has partners in 16 countries in Europe and in Japan. In 1991, ICG was appointed as a European Project Associate (EPA) for IBM.

Operations and Structure

In the group, the major holding company is CompuNet Computer AG (CNAG). This owns, directly or through subsidiaries, a network of companies throughout Germany. They are run with central guidance, as independent businesses by managers who in turn participate in the success of the group through their shares in CompuNet Gesellschafter Vermögensverwaltungs GbR, itself 38% owner of CNAG.

Exhibit 1

CompuNet Group Structure as of June 30 1995



Source: CompuNet

Abbreviations used in Exhibit 1 are explained below:

Alfatron - Alfatron GmbH Elektronik-Vertrieb, Munich
 C'Nario - C'Nario Informationsprodukte Vertriebs-GmbH, - Munich
 CCK - CompuNet Computer consult GmbH, Cologne
 CCS - CompuNet Computer Systeme GmbH, Munich
 CNAG - CompuNet Computer Distribution GmbH, Kerpen
 CNDD - CompuNet Computer Vertriebs-GmbH, - Dresden
 CNES - CompuNet Computer Vertriebs-GmbH, Essen
 CN FACH - CompuNet Fachliteratur Vertriebs-GmbH, Munich
 CNHH - CompuNet Computer Vertriebs-GmbH, Hamburg
 CNKE - CompuNet Computer Vertriebs-GmbH, Kerpen
 CNVBK - CompuNet Computer Vertriebs-und Beratungs - GmbH, Cologne
 CSK - CompuNet Systemhaus GmbH, Frankfurt/Main
 EZWO AG - EZWO computervertriebs AG, Munich

Exhibit 2

CompuNet Five-year Financial Summary (FYE 30.06) DM Millions

Year	1990/91	1991/2	1992/3	1993/4	1994/95
Revenue	626	678	684	925	1,161
Annual Growth Rate	84%	8%	1%	35%	26%
Pre-Tax Profit	5.3	22.1	22.8	41.7	59.4
Profit (Loss) After Tax	(11.7)	13.7	14.0	32.5	18.0
Headcount	0.555	0.567	0.624	0.736	0.746

Source: CompuNet

Company Strategy

CompuNet continues to focus on the desktop services market for large organisations.

Dramatic overall growth, a feature of the company's performance in the early years, has continued in a business environment dominated by economic recession and falling hardware prices. The firm's total revenues hide increasing throughput of hardware at a lower unit cost and increasing revenues from services.

Growth by acquisition is still on the agenda. In October 1993, CompuNet acquired 75% of the shares in Electronic 2000 Vertriebs-AG. This added SUN and Digital workstations to its portfolio of hardware offerings and extended it multi-vendor capabilities.

CompuNet's key areas of investments in 1994 and 1995 were:

- Telecommunications
- PC Datacentre processing
- User help desk.

Recent investment clearly reveals CompuNet's aim of shifting its focus from LANs to a higher level of information and communication technology. A countrywide coverage of links to WANs will expand CompuNet's offerings, to include routers and switches.

Financials

Exhibit 2 shows the development of CompuNet's revenue, profit and headcount over the last five years.

Market Analysis

CompuNet only publishes approximate divisions of revenues as shown in Exhibit 3.

Exhibit 3

CompuNet Split of Revenues

Year	Revenue 1993/94	Share 1993/94	Revenue 1994/95	Share 1994/95
Trading	766.8	83%	958.8	83%
Service	157.8	17%	202.4	17%
Total	934.6	100%	1,161.2	100%

Source: CompuNet

Trading revenues include services which CompuNet provides with its LifeCycle Warranty. Service revenues include education and training, consulting as well as repair services.

Exhibit 4 shows estimates of CompuNet's revenues by service delivery modes.

Exhibit 4

CompuNet European Revenues by Delivery Mode 1995 \$ Millions

Delivery Mode	Revenues in \$ Millions	Share
---------------	-------------------------	-------

Delivery Mode	Revenues in \$ Millions	%
Professional services	54	7%
Turnkey systems	360	47%
Total software & services	414	53%
Equipment services	160	21%
Total information services	574	74%
Equipment/other	200	26%
Total European Revenues	774	100%

Source: INPUT Estimates
Percentages are rounded

Exhibit 5 provides estimates of CompuNet's revenues by industry sector.

Exhibit 5

**CompuNet
European Revenues by Industry Sector 1995 \$ Millions**

Industry Sector	Revenues in \$ Millions	Share %
Discrete manufacturing	150	36
Process manufacturing	22	5
Retail distribution	8	2
Wholesale distribution	12	3
Banking & Finance	75	18
Insurance	115	28
Central & Local Government	20	5
Business Services	12	3
Total Software & Services	414	100

Source: INPUT Estimates
Percentages are rounded

Geographic Markets

CompuNet reports no revenues outside Germany.

Employees

Exhibit 6 gives a five-year summary of CompuNet's human resources development.

Exhibit 6

**CompuNet
Human Resources Development**

Year	1990/91	1991/2	1992/3	1993/4	1994/95
Headcount	1,128	1,195	1,097	1,256	1,557
Annual Growth Rate	131%	6%	-8%	14%	24%
Revenue per Employee in \$ Millions	0.370	0.378	0.416	0.491	0.497

Source: INPUT

Key Products and Services

CompuNet is principally active in four areas:

- Hardware Integration
- Software Integration
- Professional Services
- Turnkey Services.

1. Hardware Integration

CompuNet acts as an IBM systems centre and is a RS 6000 and AS/400 agent. The company is also a business partner and has expertise relating to products from Digital, Toshiba, Compaq, Hewlett-Packard, NEC, Novell and Sun.

2. Software Products Dealership

CompuNet integrates standard business software products from IBM, Microsoft, Lotus, Adobe, Borland, SPC and Novell.

3. Professional Services

The CompuNet group provides large clients with a value-added, PC-oriented service to support the implementation of complete systems.

4. Turnkey Systems

Software packages and hardware products are provided to clients as complete solutions for a particular applications need. Offerings include turnkey Compaq servers with installed SAP R/3 applications under Window NT.

5. Warranty Services

CompuNet has developed packaged warranty services to simplify the administration tasks of large customers with multi-vendor desktop installations.

Recent Projects

The following are some projects carried out by CompuNet recently:

- For Deutsche Babcock AG, CompuNet was responsible for consulting, configuration, delivery and installation of PC networks. CompuNet has now been contracted to speed up Babcock's order processing and to enhance bureau communication
- For the private bank Lönnecke & Co, CompuNet installed file server for a WAN, serving 400 HP, NCR and IBM-PCs, IBM AS/400 monitors, 10 network servers and 250 printers via ISDN connections and Cisco routers
- For ILB (Investitionsbank des Landes Brandenburg), CompuNet carried out a project to create a decentralised IT Architecture implementing SAP R/3
- For the pharmaceuticals company Bristol-Myers Squibb, CompuNet took over the end-user service. The service includes a hotline handling of up to 600 calls per month and a reporting systemsfor enquiries.

Alliances

CompuNet has distribution and support agreements with various hardware equipment and software vendors including Siemens-Nixdorf, IBM, HP, CISCO, 3COM, SUN, SAP, Microsoft and Digital.

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Computer Associates International, Inc.

New Search

UPDATED:
02/04/1998

Headquarters

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(516) 342-5601

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(516) 342-6867

Company Web Site:
<http://www.cai.com>

Summary Info

Chairman/CEO:	Charles B. Wang
President:	Sanjay Kumar
Status:	Public
Parent:	
Employees:	13,000 (12/1998)
Revenue:	\$ 4,700.0 mil
Year End	Mar-1999

Company Description

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 500 systems and applications software products worldwide.

CA's product line includes systems and database management, application development, financial and manufacturing applications and consumer solutions for use on mainframe, midrange and desktop computers. The company serves business, government, scientific and educational organizations through direct operations in 36 countries.

Organization and Structure

In North America, CA's sales and support personnel are currently organized into the following groups:

- The North American Group is responsible for sales, marketing and service of products sold directly to the user.
- A separate National Accounts Group provides additional service to large clients, including users and facilities managers. The Federal Division markets and supports federal government clients.
- The Third-Party Sales Group is responsible for sales, marketing and service of CA's software products through third-party authorized vendors.

CA operates approximately 55 offices throughout the U.S. in addition to its headquarters in Islandia (NY).

Outside North America, CA operates through wholly owned subsidiaries located in 33 countries and operates 62 foreign office facilities outside the U.S. Principal offices are located in Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Korea, Malaysia, New Zealand, Norway, the Philippines, Portugal, Russia, Singapore, South Africa (with Dimension Data Holdings Ltd.), Spain, Sweden, Switzerland, Taiwan, Turkey and the U.K.

CA places high importance on employee retention. It received Fortune's *Best Company to Work for in America* in 1998.

Company Strategy

CA's strategy is to provide its clients with corporate-wide software solutions through internal development, technology acquisition and extensive product integration. Its software solutions are designed to help clients evolve to client/server and distributed computing across desktop, midrange and mainframe computers.

This is accomplished through adherence to CA's unique software blueprint--CA90s®: Computing Architecture For The 90s. This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements. As a result, the company is able to provide enterprise-wide

solutions.

Though CA's mainframe business currently accounts for approximately 45% of sales, CA's president Charles Wang has been quoted in the computer industry press describing CA's target revenue mix otherwise in the next five years. This revenue mix would be 25% mainframe product revenues, 25% personal computer, 25% UNIX and 25% other environments.

Financials

CA's fiscal 1998 revenue reached more than \$4.7 billion, a 16.5% increase over fiscal 1997 revenue of nearly \$4.1 billion. Net income rose over 200%, from \$366 million in fiscal 1997 to \$1,169 million in fiscal 1998. 44% of CA's revenue in fiscal year 1998 was from client/server solutions.

Revenue Analysis by Product/Service

INPUT estimates that more than 71% of CA's fiscal 1998 revenue was derived from software product licenses, 27% from associated maintenance services and the remainder from professional services.

Approximately 44% of fiscal 1998 revenue came from client/server based software and services, 45% from midrange and mainframe systems and the remaining 11% from micro and other software.

Market Financials

CA's products are used by clients in manufacturing, banking, insurance, education, government agencies, retail microcomputer distribution and value-added reselling, as well as by individual personal computer users.

Acquisitions

Since its inception, CA has completed more than 100 acquisitions. Recent acquisitions include the following:

- In December 1998, CA acquired Aventura Systems of Oslo, Norway a leading provider of electronic commerce and EDI solutions.
- In October 1998, CA acquired Viewpoint DataLabs International, Inc. and 3Name3D, two leading providers of 3D digital content and creation.
- In September 1998, CA acquired QXCOM, a provider of Lotus Notes solutions.
- LEGENT Group of CA is a supplier of more than 150 systems software products and services for the management of distributed computing across the enterprise.
- Prior to CA's acquisition LEGENT had approximately 2,700 employees and revenue of \$500 million for the fiscal year ending September 30, 1994.

Key Products and Services

CA offers more than 500 system and applications software products for a range of mainframe, midrange and desktop computers from many different hardware manufacturers, including IBM, Hewlett-Packard, Amdahl, Data General, DEC, Sun, Tandem, Compaq and Apple, among others. The company also provides software maintenance and professional services.

CA's software products are organized into the following categories:

- *Enterprise Systems Management Software*
- *Enterprise Information Management Software*
- *Enterprise Business Applications Software*

Clients

CA services and supports more than 10,000 clients worldwide. CA clients include:

- 93 of the world's largest 100 companies
- More than 90% of the Fortune 500
- 38 of the top 43 motor vehicles and parts manufacturers, including Toyota, General Motors, Ford, Nissan, Daimler-Benz, Honda, Volvo, BMW, Rolls-Royce, Mitsubishi, Roert Bosch, Isuzu, Mazda, Suzuki, Kia and Yamaha
- 32 of the top 50 U.S. banks, including Citibank, Chemical, NationsBank, Chase Manhattan, Banc One and Shawmut
- 18 of the top computer companies worldwide, including IBM, Toshiba, Hewlett-Packard, Digital, Compaq, Intel, Apple and Sun Microsystems
- 43 of the top 44 electronics companies worldwide
- 28 of the top 35 U.S. food companies
- 14 of the top 18 beverage companies worldwide
- 27 of the top 30 U.S. specialist retailers
- 14 of the top 21 U.S. health care companies

Information services vendors that have licensed CA software to support their clients include Computer Sciences Corporation, IBM ISSC (with Kodak), Software Maintenance Specialists, SG2 (Paris), ALLTEL Information Services and Printrak International.

Other clients include Zions Bancorporation, Harden Industries, The Ministry of Communications of China, China National Petroleum Corporation, China Radio International, Land Registry of the Netherlands, Litton Computer Services, the U.S. Army, the Social Security Administration, the IRS, the Customs Bureau, the U.S. Geological Survey, the Bureau of Engraving and Printing, the Department of Defense and the Postal Service.

CA-Unicenter clients include the Equitable Life Assurance Society, Baxter International, King County Medical Blue Shield, Capital Cities/ABC, Libbey-Owens-Ford, Purdue University, Delta Dental Plan, MCI, Rohm and Haas, City of Albuquerque, the Bureau of National Affairs, Brake Parts, Rheem Manufacturing Co. and the State of Oregon (Department of Transportation).

Marketing and Sales Alliances

CA distributes, markets and supports its products on a worldwide basis with its own employees and a network of independent value-added resellers, distributors and dealers. CA has approximately 3,700 sales and support personnel promoting and licensing CA's products to clients.

CA also has various alliances/VAR agreements related to certain of its products with Data General, AT&T GIS, IBM, Hewlett-Packard, Adage Systems, NEC, Sun Microsystems, Microsoft, SGI, NeTpower, Siemens, Bull, Olivetti, Symbol, Intel, Pyramid, Sequent, Unisys, Apple, Lotus, Candle Corporation, Compaq, Novell, ICL, DEC, Stratus, Premenos, and Santa Cruz Operation.

More than 400 VARs are enrolled in CA's CA-Ingres Dollar Program whereby CA shares license fees with CA-OpenIngres VARs in order to reward existing third-party vendors and to expand the CA-Open Ingres VAR community.

Competitors

Competitors include hardware companies supplying systems software, such as DEC, Hewlett-Packard and IBM.

In the systems management area, competitors include Candle, Boole & Babbage and BMC Software.

In the database management system area, major competitors include IBM, Microsoft, Oracle, Sybase and Informix.

In the application development area, competitors include IBM, DEC, Inprise, Andersen Consulting and Novell, among others.

In the area of applications software products, competitors include Dun & Bradstreet Software, PeopleSoft and SAP America.

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Computer Sciences Corp.



UPDATED:
08/01/1998

Key Points

- Computer Sciences Corporation (CSC), founded in 1959, is a global provider of information technology solution
- During 1997-98, CSC won a number of noteworthy outsourcing and systems integration contracts (to name a few)
- CSC continued to strengthen its offering in the electronic commerce arena with the unveiling of its E-Wave product
- During 1997-98 CSC expanded its presence in a number of geographic, vertical and horizontal markets, through

Pinnacle Group (specializing in PeopleSoft implementation), Kalchauer Ltd (global strategy firm), GfAI (Swiss IT firm),

Company Description

With over 35 years experience and vast resources to draw upon, CSC serves a diversified, international clientele. CSC

The company's spectrum of services includes:

- Consulting in business strategy, operations, change management and information technology to help clients achieve
- Information systems consulting, design, development, integration, and implementation
- The full range of outsourcing services, spanning business management consulting, systems integration, network
- Integrated consulting, software and information technology services to the global insurance, banking and other
- Specialized systems and services for the healthcare industry -- from strategic and operational consulting to im

Organization and Structure

CSC's organizational structure is shown in Exhibit 1. The company currently provides its services through the following

- Federal Sector, headquartered in Falls Church (VA), includes two business groups, Defense and Civil, with co
- Consulting Group, headquartered in Cambridge (MA), offers services ranging from consultation on business st
- Credit Services, based in Houston (TX), provides consumer credit reports and account management services to
- Technology Management Group, headquartered in Falls Church (VA), is responsible for overseeing all commer
- Integrated Business Services, headquartered in Falls Church (VA) serves as the focal point for presenting CSC'

Exhibit 1

- European Group, headquartered in the United Kingdom, provides consulting, systems integration and outsourcing
- Australian Group, headquartered in Sydney, provides a range of management consulting, systems integration and outsourcing
- Financial Services Group, headquartered in Austin, TX provides integrated software and information technology solutions
- Pinnacle Alliance, headquartered in New York, NY manages parts of J.P. Morgan's global technology infrastructure
- Healthcare Group, headquartered in New York, NY provides a fully integrated set of products and services to a variety of healthcare providers
- Chemical and Energy Group, headquartered in Wilmington, DE provides consulting, systems integration and outsourcing
- Global Infrastructure Services Group (GIS) was formed in April 1998 to operate, maintain and evolve a global infrastructure

Company Strategy

Sales and Marketing Strategies in the Systems Integration Industry

CSC's mission is to solve clients' business problems through the strategic application of information technology. The company's primary focus is on providing integrated solutions to its clients.

Industry Specific Strategies

CSC serves a diversified, international clientele. It does this by bringing together a combination of management and technology expertise.

One of CSC's hallmarks is its decentralized organization. As the company has grown via acquisitions and major contracts, it has maintained a strong focus on client service.

CSC wins new business through its ability to offer strategic concepts and technical solutions, an in-depth grasp of a client's business, and a proven track record of successful project delivery.

Key Outsourcing Contracts

Exhibit 2

Major Contract Wins

Exhibit 3

Source: CSC

I.D./I.Q.* = Indefinite-delivery/indefinite-quantity

* Client requests that this information about the contract be confidential.

NOTE: CSC's fiscal year ends on the Friday closest to March 31. For FY98, the fiscal year ends on April 3, 1998.

Acquisitions

CSC has grown rapidly in recent years through a number of strategic acquisitions and important information technolo

Exhibit 4

*Three business units were acquired, including: telecommunications, government and industry, and technology developme

Financials

CSC's fiscal 1998 revenue reached \$6.6 billion, a 17.5% increase over fiscal 1997 revenue of \$5.6 billion.

- Net income for fiscal 1998 was \$260.3 million, including a special charge of \$20.7 million relating to the compa
- In the following five-year summary, all results are restated to include the 1996 acquisition of The Continuum

*
CSC's
fiscal year ends the Friday closest to March 31.

** Earnings per share amounts reflect a 2-for-1 stock split on March 24, 1998 paid in the form of a 100% stock dividend on March 23 to shareholders of record as

(a) Earnings per share before special items excludes a special charge of \$20.7 million associated with CSC's response to an unsolicited take-over attempt. The c

(a) Excludes a net special credit of \$1.7 million, or 1 cent per share (diluted) related to developments at an affiliated joint venture during the first quarter.

- (b) Excludes a special charge of \$48.9 million relating to the acquisition of The Continuum Company, Inc. on August 1, 1996. The charge, net of income taxes, w
- (c) Excludes a charge of \$26 million expensed for purchase of research and development in connection with the acquisition by Continuum of SOCS Holding; also
- (d) Excludes a loss on the sale of the company's tax processing operations of \$3.7 million; income tax effect of \$2.8 million reduced the after tax loss to \$.9 millio
- (e) Excludes a charge of \$48.6 million in connection with Continuum's acquisition of Vantage and Paxus.
- (f) Includes a \$4.9 million cumulative effect of a change in the method of accounting for income taxes.

In fiscal 1998, CSC achieved both improved revenue and margins, and produced strong commercial expansion in the Commercial revenue comprised 75% of total revenue for fiscal 1998. Domestic commercial revenues increased 22% to

- European revenues increased 21% to \$1.8 billion for fiscal 1998 over the prior year's \$1.5 billion. Both CSC's U
- Federal revenue also improved in the fourth quarter compared with the same quarter one year ago, although t

Revenue Analysis by Product/Service

A three-year summary of source of revenue, as reported by CSC, is shown below.

Source: CSC

*Does not include results from the August 1, 1996 acquisition of The Continuum Company, Inc.

CSC's \$6.6 billion in fiscal 1998 revenue was derived approximately as follows:

Management consulting/ Professional services	38%
Systems integration	19%
Outsourcing	43%
	100%

Market Financials

Approximately 25% of CSC's fiscal 1998 revenue was derived from the federal government and 75% from commercial s

Source: CSC

Commercial revenue is derived from Fortune 1000 companies in manufacturing, defense and aerospace, financial serv

A further breakdown of CSC's \$6.6 billion in revenue for fiscal 1998 is estimated as follows:

**Miscellaneous includes transportation, pharmaceuticals and other smaller vertical markets.*

International revenue is derived from foreign governments, financial institutions, transportation companies and man

Geographic Markets

Approximately 67% of CSC's fiscal 1998 revenue was derived from the U.S. and 33% from international markets. A th

CSC maintains offices in more than 400 locations throughout the U.S. and has approximately 700 offices worldwide. I

Employees

CSC employs 45,000 people, including experts in business reengineering®, management consulting, systems integrat

Alliances

CSC has alliances with a range of vendors for different projects, including Wang, Siemens-Nixdorf, Hewlett-Packard,

In September 1995, CSC was named the first independent provider of SAS Institute software and consulting services.

Competitors

Major competitors by primary service/product area include the following:

- Federal government professional services: TRW, Hughes Aircraft, IBM, PRC, Electronic Data Systems (EDS),
- Commercial consulting, systems integration and outsourcing: Andersen Consulting, Booz Allen & Hamilton, C
- Credit reporting service: TRW Information Services and TransUnion
- Health care systems: Jergovan and Blair, Inc.

Assessment

CSC's strengths include:

- Offering the full spectrum of services— from business reengineering to facilities management
- A strong technology thrust, focusing on current technical issues such as electronic commerce and Year 2000 co
- A leadership role in the outsourcing market and managing large, highly complex projects
- Continued strength in the federal sector
- Independence from any hardware manufacturer

Challenges over the coming year include:

- Recruiting and retaining a highly-skilled IT staff in a tight job market
- Handling the increased competitive environment, especially in systems integration and outsourcing
- Expanding CSC's presence into new geographical areas (Asia-Pacific, Latin America)

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Computer Task Group, Inc.

New
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UPDATED:
09/01/1996

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Fax:
(716) 887-7246

Company Web Site:
<http://www.ctg.com>

Summary Info

Chairman/CEO:	Gale S. Fritzgerald
Status:	Public
Employees:	5,014 (12/1995)
Revenue:	\$ 365.1 mil
Year End	Dec-1996

Key Points

- Computer Task Group (CTG), celebrating its 30 years of experience in the information technology (IT) industry, is a leading provider of software development, IT consulting, and other professional services.
- In June 1996, CTG's Winston-Salem (NC) office received ISO 9001 certification.
- In August 1995, CTG announced its first public World Wide Web pages. The internally developed pages include technical and industry-specific articles by CTG experts, and also serves as a sourcing pipeline for recruiting IT professionals.
- In August 1995, CTG was named one of only eight IBM authorized providers of national technical services.

Company Description

Founded in 1966, CTG provides a range of IT professional services to more than 750 parent company clients representing 1,800 divisions/locations worldwide.

The company's focus is on Professional Software Services and Information Technology Consulting. Services available through CTG include contract programming, business consulting, systems development and integration, and managed support.

During 1995, CTG repurchased approximately 298,000 shares of common stock for \$4.3 million. In July 1996, the company authorized the repurchase of 700,000 shares for treasury, adding to the one million shares of common stock previously authorized in 1994.

In May 1989, IBM made an equity investment in CTG, acquiring approximately 1.5 million shares of CTG preferred stock.

- As of December 31, 1994, IBM had sold all of CTG's shares, either back to CTG or on the open market.
- IBM is CTG's largest customer, with CTG providing services to approximately 50 IBM locations.

Organization and Structure

During 1993, CTG redefined its regional structure, redrew territorial boundaries, and consolidated support functions such as sourcing, finance, and administration to help delivery teams capture greater market share and bring decision-making closer to the client.

CTG has 55 offices in five countries, and provides services worldwide through a network of more than 100 geographically dispersed delivery teams.

CTG's Professional Software Services is organized in six regions with offices as follows:

- *Northeast Region* --headquartered in Syracuse (NY), with offices in Albany, Buffalo, and Rochester (NY); Boston (MA); Hartford (CT); Hudson Valley; New York City/New Jersey; and Toronto (Canada)
- *Mid-Atlantic Region* -- headquartered in Raleigh (NC), with offices in Baltimore (MD); Charlotte and Winston-Salem (NC); Delaware Valley; Greenville (SC); Central (PA); and Washington D.C.
- *South Region* --headquartered in Raleigh (NC), with offices in Atlanta (GA); Jacksonville/Orlando, Melbourne, Ft.

- Lauderdale, and Tampa (FL); and Memphis and Nashville (TN)
- *Midwest Region*-- headquartered in Merrillville (IN), with offices in Chicago (IL); Cincinnati, Cleveland, and Columbus (OH); Grand Rapids and Detroit (MI); Ft. Wayne and Indianapolis (IN); Milwaukee (WI); and Pittsburgh (PA)
 - *Central Region*-- headquartered in St. Louis (MO), with offices in Dallas, Austin, and Houston (TX); Denver (CO); Des Moines (IA); Kansas City and Omaha (NE); and St. Louis (MO)
 - *West Region*-- headquartered in San Francisco (CA), with offices in Anchorage (AK); Phoenix (AZ); Portland (OR); Salt Lake City (UT); San Jose (CA); and Seattle (WA)

CTG's Information Technology Consulting line of business, which provides offerings in Business Consulting, Development and Integration, and Managed Support through CTG's network of 55+ locations, is headquartered in Buffalo (NY).

Outside the U.S., CTG has four operating subsidiaries:

- Computer Task Group of Canada, Inc., based in Toronto (Ontario)
- Computer Task Group (U.K.) Ltd., with offices in Nottingham and Reading (England)
- Computer Task Group Nederland B.V. (the Netherlands), which includes the European headquarters
- Computer Task Group Belgium N.V. (Belgium)

Company Strategy

CTG's long-term goal is to improve value for its clients through two strategies:

- Developing "Key Client" relationships
 - Key relationships are those with companies that view CTG as a strategic partner.
 - At the beginning of 1996, CTG had approximately 150 clients that it viewed as "Key".
- Attracting and retaining the best information technology professionals. CTG believes that its greatest asset is its people.
 - CTG spent \$4 million in 1995 on employee training programs, an average of five days of training per CTG employee.
 - CTG spent more than \$475,000 in 1995 on tuition reimbursement.

CTG's restructuring was initiated in late 1993 to address the following issues:

- Improving responsiveness and sales presence
- Building a dynamic pipeline of talent
- Establishing a competitive cost structure
- Reducing overhead costs, moving as much as possible to variable costs
- Allowing decision-making to occur quickly and responsibly, and as close to the buyer as possible
- Divesting non-strategic businesses

CTG's business strategy is based upon the concept of being cost competitive while being responsive in supplying qualified staff to work on client engagements.

- CTG's services are now sold and delivered on a local level through its network of geographically dispersed delivery teams made up of sales managers, resource managers, business consultants, project managers, consultants, and software engineers.
- In order to improve its responsiveness to client requirements, CTG reorganized its hiring processes. The company now has a staff of approximately 90 (sourcing) recruiting specialists located in five regional Sourcing Centers.
- In addition, the company's network of offices gives it wide geographic coverage with the capability of servicing large companies with multiple locations.

Financials

CTG's 1995 total revenue reached \$339.4 million, a 13% increase over 1994 revenue of \$301.6 million. Net income was \$12.0 million, a 125% increase over net income of \$4.8 million for 1994.

- Net income includes a tax benefit of \$3.2 million related to losses associated with European operations in the third quarter of 1995. Excluding effects of the tax benefit, net income for 1995 was \$ 7.6 million, a 58% increase over the previous year.
- A five-year financial summary appears on the following page.

Computer Task Group, Inc.
Five-Year Financial Summary
(\$ Millions, except per-share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$339.4	\$301.6	\$295.5	\$302.7	\$285.1
• Percent change from previous year	13%	2%	(2%)	6%	17%
Income (loss) before taxes	\$12.0	\$8.1	\$(30.7)	\$10.1	\$1.6
• Percent change from previous year	48%	(b) 126%	(c) (404%)	531%	(87%)
Net income (loss)	\$10.8	\$4.8	\$(27.7)	\$5.6	\$0.9
• Percent change from previous year	(a) 125%	117%	(595%)	529%	(88%)
Earnings (loss) per share	\$1.23	\$0.52	\$(2.62)	\$0.56	\$0.10
• Percent change from previous year	(a) 137%	120%	(568%)	460%	(87%)

(a) Includes a non-recurring tax benefit of \$3.2 million (\$0.36 per share) related to losses associated with European operations during the third quarter of 1995.

(b) Includes an \$11.3 million gain from the sale of various assets.

(c) Includes \$12.8 million in restructuring costs and \$21.3 million in impairment costs.

Management attributes revenue increases to the following:

- A 12% increase in revenue for North American operations
- A 21% increase in European revenue
- An increase in billable hours as a result of 13% increase in billable staff at the end of 1995 over the prior year
- A contract awarded by IBM in the third quarter covering approximately 60% of the total services provided to IBM
- An increase of \$54.9 million (19%) from continuing operations, despite the sale of several businesses in 1994 (accounting for \$17.1 million in 1994 revenue)

CTG's 1995 revenue from continuing operations was \$339.4 million, a 19% increase over comparable 1994 revenue of \$284.4 million.

In 1996, CTG is expecting a 10% growth in revenue.

Interim Results

Revenue for the six months ending June 30, 1996 reached \$181.3 million, a 9% increase over revenue of \$166.8 million for the same period in 1995. Net income was \$4.9 million, a 39% increase over net income of nearly \$3.5 million for the same period a year ago.

Revenue growth was attributed to:

- Planned incremental improvement in margins
- Success of the company's strategy to form strong IT partnerships with its Key clients.

Revenue Analysis by Product/Service

The majority of CTG's 1995 revenue was derived from professional software services (contract programming). The remainder of revenue was derived from consulting, managed support, and implementation support services.

Approximately 87% of revenue was from time-and-materials contracts and 13% from fixed-price contracts in 1995, compared to 92% from time-and-materials and 8% from fixed-price contracts in 1994.

CTG's typical customer is a Fortune 500-size organization with large, complex information and data processing requirements. The company also serves approximately 35% of the Fortune 100 companies.

A three-year source of revenue summary follows:

**Computer Task Group, Inc.
Three-Year Source of Revenue Summary
(\$ Millions)**

Item	Fiscal Year		
	1995	1994	1993
	Percent of Total	Percent of Total	Percent of Total
Manufacturing	23%	30%	58%
Services	51%	25%	22%
Banking and finance	10%	8%	8%
Wholesale/retail	6%	5%	----
Other	10%	32%	12%
Total	100%	100%	100%

IBM accounted for \$80 million (24%) of CTG's revenue in 1995, compared to \$68 million (23%) in 1994, and \$80 million (27%) in 1993.

Geographic Markets

Approximately 90% of CTG's 1995 revenue was derived from the U.S. and 10% from Europe.

A three-year source of revenue summary is shown on the following page.

**Computer Task Group, Inc.
Three-Year Geographic Source of Revenue Summary
(\$ Millions)**

Geographic Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
North America	\$306.2	90%	\$274.1	91%	\$266.2	90%
Europe	33.2	10%	27.4	9%	29.3	10%
Total	339.4	100%	\$301.6	100%	\$295.5	100%

Divestitures

During 1994, CTG divested three businesses that did not fit in with the long-term goals of the company.

- In July 1994, CTG sold its Profimatics, Inc. subsidiary, including the 67% interest which Profimatics held in its German subsidiary (Profimatics Europe, GmbH) to Honeywell, Inc. for \$17 million. Profimatics offers applications software products for petrochemical plants and oil refining.
- In July 1994, CTG sold the hardware portion of its communications business (Network Systems Integration).
- During 1994, CTG also sold its 16% interest in SerCon to IBM Germany. SerCon was a joint venture with IBM Germany to provide support to IBM's Distributors Management Accounting System.

Employees

As of December 31, 1995, CTG had 5,014 employees, including 4,402 professional technical staff, compared to a total of 4,497 employees in 1994, and 3,738 in 1993.

Key Products and Services

CTG provides a range of services, from flexible staffing provided on a per diem basis, to managing multi-million dollar technology projects. The majority of CTG's services are provided on-site, at the client's facilities.

CTG currently provides its professional services in two interrelated areas--Professional Software Services and Information Technology Consulting.

Professional Software Services

CTG provides IT skills in response to clients' immediate or long-term needs. Once called flexible staffing or contract services, this is the business upon which CTG was founded.

In Professional Software Services, customers are looking for IT skills on a temporary basis and want a quick and accurate response.

The scope of professional services work performed by CTG ranges from specific, minor tasks of short duration to large, complex tasks that require multiple systems engineers for a long period of time. Fees are generally on a time-and-materials basis.

Information Technology Consulting

CTG's IT consulting provides IT solutions, assuming responsibility for defined deliverables or service levels, and focused on three major offerings aligned to the business solution life cycle (plan, design, maintain)--Business Consulting, Development & Integration, and Managed Support. Fees are generally on a time-and-materials basis.

Business Consulting focuses on the planning phase of the IT life cycle. CTG consultants help a customer develop the plan to reengineer its business processes, assess its technology needs, and choose the appropriate technology.

Development & Integration supports the implementation phase of the IT life cycle, including software package implementation and client/server and other application development.

Managed Support addresses the maintenance segment of the IT life cycle. It encompasses service offerings such as help desk (managing or staffing client help desks for systems or overall IT support), systems operations and network support (running or maintaining a customer's systems or IT function), and application maintenance outsourcing (maintaining a company's systems).

Customers are served by local teams, comprising Sales Managers, Business Consultants, Resource Managers, and Project Managers who work together--the first two focus on identifying an engagement, the third focuses on finding appropriate, high quality professionals for an engagement, and the fourth manages successful project completion.

- Supporting these local teams are regional recruiting (sourcing) specialists backed by SmartSource, a national electronic database of professional computer consultants and programmers to improve effectiveness at locating qualified IT candidates.
- Project Managers are responsible for profitability, client satisfaction, and risk management in the project delivery of IT Consulting offerings.

CTG has special expertise in the following areas:

- Client/server
- Databases
- Imaging systems
- Vertical industries--health care, metals, logistics, distribution, pharmaceuticals
- Manufacturing systems

Clients

CTG's customer base is large and diverse, including approximately 900 clients. At the beginning of 1996, CTG had 150 clients that it viewed as "Key". Some of its Key clients include:

- Milliken & Company, one of the world's largest privately held textile companies, contracts CTG as a primary supplier of IT services, and has done so for the last 12 years. CTG provides a range of services from systems development for manufacturing to business systems and strategic business consulting in computer integrated manufacturing. In February 1996, CTG was awarded Milliken's first Distinguished Supplier award for IT services.
- IBM is CTG's largest client. CTG fulfills all of IBM's needs through its National Delivery Team, which functions like a region, but focuses solely on filling skill requirements for IBM. The National Delivery Team also manages CTG's alliances with MCI and Hewlett-Packard. In August 1995, CTG was named one of only eight IBM authorized providers of national technical services.
- CTG is involved in a three-year warehouse and manufacturing operation reengineering project for Calvin Klein Cosmetics Company. CTG has designed and implemented a warehouse management system that combines real-time inventory control, radio frequency functions, and high speed automation, including conveyors, sorts, bar code scanners, and a weigh in motion scale. In July 1996, CTG completed Phase II of the project.
- In August 1995, CTG entered into a four-year, multi-million dollar outsourcing contract with Agway Inc., a cooperative that provides agriculture-related services and products. CTG has assumed the responsibility for the maintenance of Agway's computer applications and the management of application programmers.

Marketing and Sales

CTG markets its services through a direct sales staff.

Marketing efforts span all strata of the organization.

- On the corporate and regional level, management performs strategic, tactical, and operational sales planning to assess industry and customer needs and target markets.
- On a local level, CTG markets Professional Software Services and IT Consulting Services through teams of professionals comprising Sales Managers, Resource Managers, and Business Consultants.
- The Sales Managers and Business Consultants focus on identifying engagements. Resource Managers match the appropriate professionals to the engagements.
- These local teams are supported by a force of 90 sourcing specialists located in five regional locations, who draw on a national electronic database of over 160,000 professional computer consultants and programmers.
- During 1994, these centers started using the electronic recruiting database to screen and monitor staff who are available to work on CTG's client programming needs. SmartSource, CTG's unique sourcing ability, combines process, artificial intelligence-based technology and recruiting staff to create a nationwide pipeline of more than 160,000 qualified IT professionals. SmartSource ensures that the professionals recommended by CTG are qualified and have the highest quality skills.
- In the first year the system was in place CTG created a qualified database of more than 100,000 candidates available for assignments. Today the system houses more than 160,000 resumes.

Sales Managers and Resource Managers are full-time employees who receive a base salary and are paid commissions based on objectives such as revenues and profitability of the business they sell. Each Sales Manager is assigned a sales quota and is paid in relationship to this quota.

CTG also uses the Internet and the World Wide Web as key components of its communications infrastructure, called CTGNet. The company uses the Internet and the Web to connect wide-spread employees, as a resource tool for recruiting, marketing, and service delivery.

Competition

CTG's competition comes primarily from four channels:

- Internal data processing staff of CTG customers.
- Small local firms or individuals specializing in specific programming services or applications
- Hardware vendors and suppliers of packaged software systems
- Large national or international vendors, including major accounting firms that offer a range of development services

Major competitors include Keane, Andersen Consulting, EDS, DEC, CSC, Computer Horizons and Analysts International.

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Compuware Corporation

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UPDATED:
03/01/1996
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U.S.
Phone: 248-737-7300 **Fax:** 248-737-7108
Company Web Site:
<http://www.compuware.com>

Summary Info

Chairman/CEO: Peter Karmanos, Jr.
President: Joseph A. Nathan
Status: Public
Parent: Public
Employees: 8,663 (03/1998)
Revenue: \$ 1,139.3 mil
Year End: Mar-1998

Key Points

- Compuware is a leading worldwide provider of systems software products and professional services that help information technology professionals efficiently develop, implement and support the applications that run their businesses.
- Compuware's target market is the 15,000 largest enterprises worldwide.
- Compuware's client/server product revenue reached approximately \$95 million in fiscal 1995, up 70% over the previous year.
- In early 1996, Compuware expanded its professional services capabilities with the acquisition of two firms--Minneapolis-based Technalysis Corporation and Icons GmbH, a professional services firm based in Germany.
- In November 1995, Compuware expanded its EcoTOOLS system management product line with the acquisition of CoroNet Systems.
- Compuware's largest acquisition--Unifac Holding B.V. in May 1994--expanded the company's product line to include the UNIFACE design and development environment for client/server applications.

Company Description

Compuware, founded in 1973, provides systems software products and professional services.

- The company offers 50 products for designing and developing applications, for testing and implementing applications, and for product application management. Compuware's products are used by more than 8,800 customers worldwide.
- Working across a spectrum of technologies, including mainframe, midrange and client/server platforms, Compuware professional services staff provides business systems analysis, design, programming and implementation, software conversion, and systems planning and consulting.

Organization and Structure

Compuware is organized into the Products Division and the Professional Services Division.

- The Products Division includes two groups--The Enterprise Systems Group, which is responsible for testing and implementation products; and the Client/Server Systems Group, which is responsible for design and development, and production application management products.
- The Professional Services Division, with more than 2,400 employees, provides a range of services, including business systems analysis, design, programming, and implementation, as well as software conversion and systems planning and consulting.

Compuware's key executives are listed below:

Key Executives

Name	Title
Peter Karmanos, Jr.	Chairman & CEO

Joseph A. Nathan	President & COO
Ralph A. Caponigro	SVP & CFO
Karl E. Christen	SVP & CTO
Henry A. Jallo	SVP, Worldwide Sales
W. James Prowse	SVP Marketing & Communications
Stephen H. Fagan	SVP, Enterprise Software
John N. Shevillo	SVP, Professional Services

In addition to its headquarters in Farmington Hills (MI), Compuware has more than 45 offices across the U.S., Canada, Europe, and the Asia/Pacific region that support the company's software products.

Professional services are marketed through approximately 20 offices in the U.S., Canada and Europe.

Company Strategy

Compuware is positioning the company as a provider of quality software and services designed to increase productivity. Compuware's enterprise-wide productivity solutions focus on business-critical applications, from conception through production.

- The company historically focused on the run-time environment in the mainframe market, where it has extensive experience and has long-term customer relationships.
- Compuware is leveraging its experience and relationships by expansion into the client/server market through internal development and acquisitions. The company now offers client/server products and professional services for designing and developing applications, for testing and implementing applications and for production application management.
- Its UNIFACE and EcoSystems products are penetrating the client/server application development and systems management environments. Compuware has trained a significant segment of its professional services staff in UNIFACE technology so it can assign such personnel to fulfill client/server-oriented consulting and implementation requirements.

In the mainframe market, Compuware intends to remain focused on developing, marketing and supporting run-time programmer productivity software and to work closely with its customers to meet their evolving needs.

- The company has chosen not to compete in the application development and systems management environments of the mainframe market because these are mature markets served by several large companies, including IBM, Computer Associates/LEGENT and BMC Software.
- By providing professional services in conjunction with its mainframe products, the company can provide a total solution to its clients, affording the company a competitive advantage.

Financials

Compuware's fiscal 1995 revenue reached \$533.9 million, a 35% increase over fiscal 1994 revenue of \$394.3 million. Net income was \$62.1 million, down slightly from net income of \$62.3 million for fiscal 1994.

- Fiscal 1995 results include a total of approximately \$19.1 million in restructuring and merger-related costs associated with the acquisition, restructuring and integration of Uniface and \$12 million in charges for purchased research and development incurred in connection with the purchase of Simon and Oliver products from Advanced Programming Techniques, Ltd.
- In the five-year summary that appears on the following page, financials prior to fiscal 1995 have been restated to reflect the pooling-of-interests acquisition of Uniface in May 1994.

Compuware management attributed fiscal 1995 results to the following:

- Software license fees increased 37%. All of the company's product families experienced growth in license sales due primarily to: the expansion of Compuware's subsidiaries in Japan and the Asia/Pacific region; an increase in the number of the company's independent distributors; the sale of new products; and expansion of the European sales force.
- Maintenance fee revenue increased 3% due to growth in the number of installed copies of its products and a relatively steady rate of maintenance contract renewals.
- Professional services revenue increased 37%, due primarily to increased business at new and existing clients equal to \$18.5 million, \$9.2 million and \$4.0 million at Compuware's Farmington Hills (MI), Milwaukee (WI), and Colorado Springs (CO) branches, respectively; and a \$4.1 million increase related to Uniface.
- Revenue from North American operations increased 24%. International revenue increased 61%.

Compuware Corporation

Five-Year Financial Summary

(\$ Millions, except per share data)

Item	Fiscal Year				
	3/95	3/94	3/93	3/92	3/91
Revenue	\$533.9	\$394.3	\$304.6	\$220.6	\$169.9
• Percent change from previous year	35%	39%	38%	30%	N/A
Income (loss) before taxes	\$95.2	\$93.9	\$54.0	\$(29.0)	\$13.9
• Percent change from previous year	(a)(b) 1%	74%	(c) 252%	(d) (309%)	N/A
Net income (loss)	\$62.1	\$62.3	\$37.5	\$(24.1)	\$10.0
• Percent change from previous year	--	66%	256%	(341%)	N/A
Earnings (loss) per share	\$1.30	\$1.34	\$0.89	N/A	N/A
• Percent change from previous year	(3%)	51%	N/A		

(a) Includes \$10.5 million in restructuring and certain merger-related costs, plus \$8.5 million in additional merger costs associated with the acquisition of Uniface.

(b) Includes \$12 million in charges for purchased research and development associated with the purchase of Simola and Oliver products.

(c) Includes \$6.5 million in charges related to purchased research and development.

(d) Includes charges of \$32.8 million related to the acquisition of XA Systems and \$19.7 million for deferred compensation expenses.

Research and development costs incurred internally were \$45.7 million, \$35.0 million, and \$27.8 million during fiscal 1995, 1994, and 1993, respectively.

Revenue Analysis by Product/Service

Approximately 42% of Compuware's fiscal 1995 revenue was derived from software license fees, 29% from software maintenance fees, and the remaining 29% from professional services.

A three-year summary of source of revenue is shown on the following page.

Compuware Corporation

Three-Year Source of Revenue Summary

(\$ Millions)

Product/Service	Fiscal Year					
	3/95		3/94		3/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Software license fees	\$223.6	42%	\$163.5	42%	\$117.4	38%
Maintenance fees	153.8	29%	116.4	29%	90.3	30%
Professional services	156.5	29%	114.4	29%	96.9	32%
Total	\$533.9	100%	\$394.3	100%	\$304.6	100%

Interim Results

Revenue for the nine months ending December 31, 1995 reached \$427.4 million, a 12% increase over \$381.2 million for the same period in 1994.

- Software license fees declined 7% to \$144.1 million due to a 41% decrease in application development product sales, which was partially offset by a 66% increase in sales of client/server systems management products. Mainframe product sales also increased 7%.
- Maintenance fee revenue increased 21% to \$135.6 million, due to growth in the number of installed copies of its products.
- Professional services revenue increased 31% to \$147.7 million, due primarily to increased business at new and existing clients amounting to \$9.6 million and \$8.2 million at the company's Farmington Hills (MI) and Milwaukee (WI) branches, respectively.
- For the nine months ending December 31, 1995, approximately 34% of revenue came from software products, 32% from software maintenance fees and 34% from professional services.

Net income was \$19.2 million (which includes charges for purchased research and development of \$24.9 million associated with the acquisition of CoroNet Systems in November 1995), compared to net income of \$40.1 million for the same period a year ago (which includes special charges of \$22.5 million related to the acquisition of Uniface and the Simon and Oliver products).

Market Financials

Compuware focuses on the world's 15,000 largest commercial users of information technology.

The company has clients in banking, insurance, telecommunications, manufacturing, government services and other industries.

Geographic Markets

Compuware derived approximately 64% of its fiscal 1995 revenue from North America, 26% from Europe and the remainder from other international operations.

A three-year geographic source of revenue summary appears on the following page.

Compuware Corporation Three-Year Geographic Source of Revenue Summary (\$ Millions)

Geographic Market	Fiscal Year					
	3/95		3/94		3/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$344.3	64%	\$276.8	70%	\$214.0	70%
European subsidiaries	139.8	26%	103.6	26%	80.2	26%
Other international	49.8	10%	13.9	4%	10.4	4%
Total	\$533.9	100%	\$394.3	100%	\$304.6	100%

Acquisitions

In January 1996, Compuware announced its intention to acquired Technalysis Corporation for approximately \$30 million. The acquisition will be accounted for as a purchase.

- Technalysis, based in Minneapolis, is a professional services firm that provides software analysis, design and programming services.
- Technalysis reported revenue of approximately \$19 million for 1995.

In January 1996, Compuware acquired Icons GmbH, a professional services firm located in the Duesseldorf/Dortmund area of Germany. The acquisition will be accounted for as a purchase.

- Icons, with 35 employees, provides value-added information technology professional services in Germany. The company has a broad base of project management expertise and has been involved with many large UNIFACE projects in the German market. Icons also has experience in integrating desktop applications into the SAP R/3 environment.
- Icons will become part of Compuware GmbH.

In February 1996, Compuware announced it had terminated acquisition talks with Minneapolis-based Born Information Services Group, a computer-systems staffing firm.

In November 1995, Compuware acquired CoroNet Systems, Inc. of Los Altos (CA) for approximately \$27 million. The acquisition was accounted for as a purchase.

- CoroNet is in the process of developing client/server network applications performance management tools. Upon completion, the CoroNet product (renamed EcoNET) is expected to provide a link between network and systems management, enabling network managers to see who is using the network and for what purpose.

In September 1995, Compuware acquired the remaining outstanding common stock of Compuware Nordic AS for approximately \$9.4 million. Nordic is a majority owned subsidiary that distributes Compuware's products in Norway and Denmark.

In June 1994, Compuware acquired the Simon and Oliver interactive analysis and debugging products of CICS and batch environments from Advance Programming Techniques, Ltd. for \$17.5 million.

In May 1994, Compuware acquired Uniface Holding B.V. for nearly 7 million shares of Compuware common stock.

- Uniface provides its UNIFACE client/server development tools for enterprise applications and associated professional services.
- Uniface had revenue of approximately \$64 million and \$42.9 million for the fiscal years ending March 31, 1994 and March 31, 1993, respectively.

In March 1994, Compuware acquired Computer People Unlimited for 820,000 shares of Compuware common stock. The acquisition was accounted for as a pooling of interests.

- Computer People provided professional software services. Computer People had revenue of approximately \$31.1 million and \$26.7 million for the fiscal years ending March 31, 1994 and March 31, 1993, respectively.
- The operations of Computer People have been merged into Compuware.

During 1994, Compuware acquired Meta Technologies, Inc., a Dallas-based professional services firm with a base of application development, training, consulting and repository design clients.

In August 1993, Compuware acquired EcoSystems Software, Inc. for approximately 651,000 shares of Compuware common stock in a pooling-of-interests transaction. EcoSystems provides production application management software for UNIX client/server applications.

In January 1993, Compuware purchased the Eyewitness fault diagnosis product line from Landmark Systems Corporation for \$12.4 million.

Employees

As of March 31, 1995, Compuware had 4,105 employees (including its Australian, Brazilian, Canadian, Japanese and European subsidiaries), segmented as follows:

Product sales, sales support and marketing	802
Research and development	404
Product maintenance and customer support	279
Professional services marketing and delivery	2,049
General and administrative	571

4,105

The company currently has approximately 4,800 employees, including more than 2,800 people in Compuware's Professional Services Division.

Key Products and Services

Compuware's software products and professional services are summarized below.

Software Products

Compuware develops, markets and supports an integrated line of mainframe testing and implementation software products, as well as client/server production application management and application development products.

Testing and Implementation products provide programmer productivity in testing, debugging and maintaining large-scale application software. These products are grouped into four product families as follows:

- File and Data Management products include:
 - File-AID (for TSO/MVS, IMS, CICS, DB2 and PC workstations)
 - DBA-XPRT (for DB2 and Oracle)
 - DATA-XPRT, for testing client/server applications
- Fault Diagnosis products include:
 - Abend-AID (for TSO/MVS, VSE, IMS, CICS, DB2)
 - CICS Abend-AID/FX
 - Fault-XPRT (for OS/2, HP-UX, AIX, Microsoft Windows)
- Interactive Analysis and Debugging products include:
 - XPEDITER (for TSO/MVS, VSE, IMS, CICS, DB2 and PC workstations)
 - XPEDITER+ (for OS/2)
 - PATHVU (for PC workstations)
 - RETROFIT (for PC workstations)
 - Simon, interactive analysis and debugging for batch applications with PL/I support
 - Oliver, interactive analysis and debugging for CICS with PL/I support
- Automated Testing products include:
 - PLAYBACK (for TSO/MVS, VSE, IMS, CICS, DB2 and PC workstations and client/server applications)
 - Hiperstation (for TSO/MVS, CICS)

Design and Development products speed application development and insulate applications from changes in underlying technology.

- UNIFACE is Compuware's client/server development environment specifically designed for building enterprise-scale business applications. UNIFACE employs a model-driven approach to development.
- UNIFACE runs on Microsoft Windows, DOS, VMS, MPE/IX, Macintosh System 7 and a range of UNIX platforms.
- In addition, applications built with UNIFACE have access to relational and nonrelational data sources, including Oracle, Sybase, Informix, Ingres DB2/6000 and Rdb.
- UNIFACE WebEnable, announced in March 1996, allows developers to build and deploy business-critical applications for the World Wide Web. The product is the first step in the company's strategy to help customers exploit the Internet/Intranet for enterprise computing.

Production Application Management products provide access to and control over entire systems of computers, operating systems, networks and applications, including distributed databases and other client/server applications. Products include the following:

- EcoDBA
- EcoNET, a network management system
- EcoTOOLS, for monitoring application and UNIX operating systems for fault and performance problems
- RemoteControl/2, client/server management software for distributed OS/2 applications

In February 1996, Compuware announced planned support for the next generation of UNIX technology announced by Hewlett-Packard and the Santa Cruz Operation.

Product Maintenance and Customer Support

All customers who subscribe to Compuware's maintenance and support services are entitled to receive technical support and advice, including problem resolution services and assistance in product installation, error corrections, and any product enhancements released by Compuware during the maintenance period.

- Maintenance and support services are provided primarily by telephone access to technical personnel located in Farmington Hills (MI), Alameda and Los Gatos (CA), and in offices of Compuware's European subsidiaries and distributors.
- Perpetual licensees have the option of renewing their maintenance agreements each year for an annual fee of approximately 15% of the then-current list price of the licensed product. Perpetual licensees also have the option of purchasing maintenance for up to five years on a prepaid basis.
- In fiscal 1995, approximately 97% of Compuware's existing customers renewed at least one of their maintenance arrangements.

Professional Services

The objective of Compuware's professional services is to create long-term relationships with clients in which its professional staff join with the client's information systems organization to plan, design, program, implement and maintain technology-based solutions to achieve client business goals.

- Typically, the professional services staff is integrated with the client's development team on a specific application or project.
- Professional services staff work primarily at client sites or at Compuware's Development Centers in Farmington Hills (MI), Milwaukee (WI), Alameda (CA) and Bethesda (MD).

Compuware technical specialists have experience across a spectrum of technologies, including mainframe, midrange and client/server platforms.

Services provided include the following:

- *Strategy & Planning*, including strategic systems planning, technology architecture planning, emerging technology evaluation, asset management planning, and IT organizational design and skill profiling
- *Requirements & Design*, including detailed business modeling, business process redesign, information engineering and network design
- *Construction*, including application development, conversions, development center services, testing services and education and training
- *Production*, including application assessment, application maintenance, legacy system renewal, technical support services, capacity planning, performance tuning, data management, operational reviews and network management

In March 1996, Compuware unveiled its Production 2000 strategy that combines its software products with professional services staff and an automated process to provide an integrated approach to address year-2000 date-change projects from start to finish.

The company's Education Resources Group also offers more than 40 educational courses covering a variety of technologies.

Marketing and Sales

Compuware markets its software products through a combination of direct sales, distributors, value-added resellers and OEMs in 37 countries around the world. The company has direct sales forces in the U.S., Canada, Europe, Japan, Australia and Brazil.

Compuware markets its professional services in North America and Europe primarily through account managers.

- Senior professional services executives support branch marketing efforts by identifying new business opportunities and making joint sales calls. This marketing structure enables Compuware to keep abreast of, and respond quickly to, the changing needs of its clients and to call on the actual users of Compuware's professional services on a regular basis.
- Uniface professional services in Europe are generally provided in conjunction with product sales.

Alliances

In March 1996, Compuware announced that it will resell SOLID Server for UNIFACE under an agreement with Solid Information Technology Ltd., based in Helsinki (Finland). SOLID Server is an advanced, SQL database that supports the UNIFACE client/server application development environment.

In February 1996, Compuware announced it will support Tivoli Systems' Applications Management Specification (AMS) with its Eco suite of networked applications management products.

In December 1995, Compuware and Digital Equipment Corporation announced their partnership in the Affinity program, a business alliance that supports the integration of Windows NT and OpenVMS. Through this relationship, Compuware's client/server tools support Digital's 64-bit computing environments across the enterprise.

In October 1995, Compuware formed an alliance with Digital Equipment Corporation whereby Compuware's EcoTOOLS will support the Digital UNIX platform and Alpha workstations. Both companies will jointly sponsor customer seminars, training courses, and conferences.

In April 1995, Compuware signed a worldwide distribution agreement with Mercury Interactive Corporation of Santa Clara (CA) whereby Compuware will market a set of Mercury Interactive's automated testing products for several client/server run-time environments to Compuware's 8,000 plus software users worldwide.

Compuware is an HP International Channel Partner and an HP OpenView Premier Partner.

Competition

Compuware's software product competitors include BMC Software, Computer Associates (including LEGENT products), Gupta, Informix, Oracle, Platinum Software, Powersoft, Sybase and VIASOFT.

Professional services competitors include Andersen Consulting, EDS, IBM ISSC, and numerous small, regional and local firms in the same areas in which Compuware has professional services offices.

INPUT Assessment

Compuware's strengths include:

- An established base of mainframe software clients, with revenue increasing
- A successful expansion to client/server offerings
- Its ability to provide a total solution through software products and professional services

Challenges over the coming year include:

- Completing the integration of acquired businesses
- Successfully releasing client/server versions of all of its product lines

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Coopers & Lybrand Consulting



UPDATED:
03/30/1998

Headquarters

1251 Avenue of the Americas
New York, NY 10020
U.S.

Phone: (212) 536-2000 **Fax:** (212) 536-3500

Company Web Site:
<http://www.colybrand.com>

Summary Info

Vice Chairman: John M. Jacobs
Status: Business Unit
Parent: Coopers and Lybrand L.L.P.
Employees: N/A
Revenue: N/A
Year End: Jan-1998

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.
SAP Services	Singapore
SAP Services	U.K.
SAP Services	U.S.

Key Points

- In 1997, Coopers & Lybrand announced a plan to merge practices with Price Waterhouse. An integrated global leadership team will have responsibility for guiding the merged organization.
- Coopers & Lybrand Consulting's strategic business units are organized by industry: Automotive, Construction and Engineering, Consumer and Industrial Products, Financial Services, Government, Health Care, Higher Education, High Technology, Pharmaceutical, Retail, Telecommunications and Media, and Utilities.
- Functional units working in tandem with industry practices are Financial Management, Logistics, Integrated Strategic Services, and Solutions Thru Technology (STT).
- In January 1998, the Solutions Thru Technology unit created new practices for Data Warehousing and Database Marketing.

Company Description

Coopers & Lybrand Consulting is one of Coopers & Lybrand's five primary lines of business, providing the majority of the company's consulting services. Coopers & Lybrand Consulting services are provided along industry and functional lines, and include business strategy consulting and information technology services. Information services provided include consulting, software development, professional services, and systems integration.

The parent organization, Coopers & Lybrand L.L.P., is an international professional services firm that provides accounting, auditing, tax, and management consulting, and actuarial, employee benefits and compensation services to business, industry, and government.

- Coopers & Lybrand L.L.P. has more than 19,000 employees in the United States. Member firms of Coopers & Lybrand International have more than 82,000 people in 138 countries worldwide.

Organization and Structure

Coopers & Lybrand L.L.P. has five lines of business:

- Business Assurance
- Financial Advisory Services
- Management Consulting
- Tax
- Human Resource Advisory

Coopers & Lybrand Consulting is a U.S.-based organization—other countries with a separate consulting organization has its own P/L and operating and organizational structure. These report to a regional "oversight" committee, which reports to an International Steering Committee, which serves as a worldwide governance organization.

While the bulk of IT consulting revenue in the United States is attributable to Management Consulting's STT unit, the Business Assurance, Corporate Finance, and Human Resource Advisory lines of business all have important IT services, as described in the Key Products and Services section.

Company Strategy

Coopers & Lybrand Consulting's strategy is built around a set of vertically integrated practices, which combine its best strategy, operations, and technology applications consultants. This industry-based strategy allows the company to place the appropriate consulting teams on each assignment and move quickly from strategy to implementation.

Financials

Coopers & Lybrand Consulting declined to release any financials for this report.

Employees

Coopers & Lybrand Consulting Professionals include associates, senior associates, managing associates, and administrative staff. Sales and in-house recruitment personnel are included in administrative staff.

Key Products and Services

Coopers & Lybrand Consulting provides change management, corporate transformation, business effectiveness, process reengineering, strategy, and systems development and delivery services to clients.

Coopers & Lybrand Consulting's systems development and delivery services cover the design, planning and implementation of information technology infrastructure and computer systems. Services by practice area include:

Financial Management—solutions to questions and issues challenging enterprise value management and the changing role of finance within the enterprise.

Integrated Strategic Services (ISS)—develops enterprise strategy and implementation methodology in three practice areas:

- Enterprise strategy
- Sales and marketing strategy
- Technology strategy and planning

Logistics—services are offered in four general areas:

- Logistics strategy
- Distribution operations
- Manufacturing

- Logistics information systems

Solutions Thru Technology (STT)—STT, the systems and technology consulting unit of Coopers & Lybrand Consulting, offers the full life cycle of systems implementation services, providing in-depth skills in different technology platforms, operating systems, applications, databases, communication systems, and languages.

STT services include:

- Application Maintenance—maintenance and enhancement services for all or part of client application portfolios to keep systems operational and responsive to user needs.
- Baan—as a member of Baan's Global Consulting Alliance Program, STT implements Baan solutions to improve clients' operational efficiency.
- Consumer/Industrial Systems
 - In consumer goods, STT addresses Efficient Consumer Response (ECR), go-to-market, sales force automation, and similar consumer-focused initiatives.
 - In the industrial sector, STT supports supply chain performance, production planning, sourcing, scheduling and execution.
- Custom Systems Development—design and implementation services supported by Coopers & Lybrand's proprietary SUMMIT-D implementation methodology
- Database Marketing—facilitation of customized, integrated database marketing strategies, infrastructure, targeting, analytical methods, and campaign execution
- Data Warehouse and Decision Support Systems—a full array of design services including infrastructure planning, data distribution, data mining and access, and architecture design
- Emerging Technologies—technology infrastructure and architecture design, automated testing, network architecture design, and transitioning to object-oriented technology
- Insurance and Managed Care Systems—industry-specific solutions for insurance and managed care companies including data warehouses, decision support systems, database marketing systems, Internet/electronic commerce, call center technology, document management systems, package selection/integration, and application management outsourcing
- Internet/Intranet/Electronic Commerce—development and implementation of business-to-business systems that replace or supplement EDI and create tighter links with customers and dealers
- Oracle—application and database strategy and implementation services that enhance and reengineer enterprise systems and processes
Coopers & Lybrand is a participant in Oracle's Applications Partnering Program.
- PeopleSoft—full value-add life cycle implementation services for PeopleSoft applications including the financials, manufacturing, HRMS, and Student Administration suite including process design and prototyping employing Coopers & Lybrand's proprietary PeopleSummit methodology
Coopers & Lybrand is a PeopleSoft Global Solutions Provider.
- Quality and Risk Management—a program that focuses on completing systems delivery projects on-time, on-budget, and within parameters
- SAP—industry-specific R/3 implementations
Coopers & Lybrand is a SAP R/3 Implementation Consulting Partner and Global SAP Alliance Partner.
- Sales and Field Force Automation—services include remote/mobile supply chain and customer management systems integration, virtual selling initiatives via Internet/Intranet applications, and assimilating remote/mobile applications into corporate legacy environments
- Software evaluation and implementation strategies—consulting on the potential benefits of ERP software and the development of implementation strategies to help clients realize operational improvement
- Software and infrastructure testing—testing strategy, methods, and execution including testing process review and assessment, test strategy, methodology and planning, test requirements, test case and scripts development, test laboratory specification and design, change management and release management, test automation and execution, and performance and stress testing.

Coopers & Lybrand News Network Extranet Series

Coopers & Lybrand is involved with a number of online ventures including:

- Tax New Network (TNN)—an electronic tax and business news service (www.taxnews.com), TNN has approximately 2,500 clients enlisted from about 1,500 companies.
- Lodging Research Network—lodging industry research and data (www.lodgingresearch.com)
- Business Executive's Accounting Network—an interactive source of accounting and financial information designed for financial executives of large corporations (www.clnetsnet.com/bean)
- PointCast Business Network Telecommunications Insider—available as a free download from PointCast (www.pointcast.com), the Telecommunications Insider delivers industry-specific news over the internet for telecommunications professionals.
- Coopers & Lybrand and PointCast are planning the Utilities and Energy Insider for industry-specific news on the utilities and energy industries

Other IT Services

Coopers & Lybrand Consulting has developed TeleSim, a software program that acts as a simulator to train telecom managers in the competitive dynamics of the industry.

Coopers & Lybrand LLP's Business Assurance line of business has a number of IT-intensive services including:

- Computer assurance services
- Computer systems assurance
- Computer audit
- IT advisory services
- Computer security services
- Data interrogation
- Spreadsheet reviews

Original products for financial management offered by Coopers & Lybrand include InSite, a financial analysis modeling tool for school systems; the Multimedia Guide to Swaps, a training and reference tool on the swaps and derivatives markets; and, CLIME (Coopers & Lybrand's Information Management Environment), a set of software tools and methodologies for reengineering enterprise reporting and measurement processes.

Human resources information systems are offered by the Human Resources Advisory practice.

Recent Engagements

Applications Maintenance Outsourcing

- Providing application maintenance and development support for a large electronics components manufacturer during the replacement of its core financial systems
- Migrating and testing applications, implementing job processing and security standards, and providing ongoing technical support for a large oil, gas and chemical organization

Data Warehouse

- Performing the design and implementation of an enterprise data warehouse and decision support system for a leading credit card issuer.

Consumer & Industrial Systems

- A supply chain management strategy and action plan was developed for a diversified food and beverage manufacturer.

- An Executive Information System and Product Information System was added to the Sales and Marketing system for a midsize consumer products company.

Global Trading System

- Developing a comprehensive commodities and derivatives trading system for a major international bank

Internet/Extranet/E commerce

- For a major energy broker, an HTML and a Java based Extranet-based electricity futures trading system was developed.
- An Intranet-based Net Present Value system was developed for a major international bank to display the results of trading in near real-time to senior managers.

Migration

- An IT Organizational Strategy encompassing technology architecture, the organizational structure, and a development plan to support the migration was prepared for a mid-size electric distribution organization.

Sales and Field Force Automation

- STT created a Sales Force Automation System for a cosmetics and apparel manufacturer that facilitates order entry, order status, electronic mail, data collection, and office automation needs.

Business Development

Coopers & Lybrand Consulting's sales strategy includes a dedicated sales force within Coopers & L3 brand Consulting and partners who commit 50% of their time to business development and the remaining 50% on consulting activities.

Alliances

Coopers & Lybrand Consulting maintains vendor relationships with the following technology companies: CyberCash, Digital Equipment, Hewlett Packard, IBM, Industri-Matematik International Corp. (I.M.I), JD Edwards, Lawson, Lotus, Microstrategy, Microsoft, NCR, NetScape, Novell, Oracle, PeopleSoft, Rational Software, SAP, SSA, Sun Microsystems, and Unisys.

Competition

Major competitors include Andersen Consulting, Ernst & Young, KPMG Peat Marwick, Deloitte & Touche, McKinsey & Company, Boston Consulting Group and Booz Allen & Hamilton.

Assessment

Coopers & Lybrand Consulting considers its strengths to include:

- Offering a full range of professional services, including business strategy, finance, and accounting, as well as technology consulting
- Providing world class business strategists *with* enabling technology and delivery along industry lines
- Taking a business and total return on investment view of all technology-enabling investment options
- Maintaining shared "Centers of Excellence" to reduce costs

Some of the challenges faced by the firm include the following:

- Maintaining momentum in IT services as the merger with Price Waterhouse takes hold
- Further leveraging of the audit account base for consulting opportunities

Parent Company

Coopers & Lybrand L.L.P.
1251 Avenue of the Americas
New York, NY 10020
Phone: (212) 536-2000

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CyberCash, Inc.



UPDATED:
10/01/1997

Headquarters

2100 Reston Parkway, 3rd Floor
Reston, VA 22091
U.S.

Phone: (703) 620-4200
Fax: (703) 620-4215

Company Web Site:
<http://www.cybercash.com>

Summary Info

Chairman:	Daniel C. Lynch
President/CEO:	William N. Melton
Status:	Public
Employees:	220 (12/1996)
Revenue:	\$ 127.4 mil

Year End	Dec-1996
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Key Points

- CyberCash is a developer of software and service solutions for secure Internet payment.
- In April 1997, CyberCash and Carnegie Mellon University announced an agreement commercializing a new generation of advanced micropayment technology for electronic commerce called NetBill.
- In February 1997, CyberCash introduced the Digital NewsStand, a virtual "pay-per-view" forum for magazines, newspapers, and media services.
- In January 1997, CyberCash launched its PayNow™ Secure Electronic Check Service in a pilot program with Cephas Multimedia Inc. that allows Cephas to accept payments via the Internet.
- In October 1996, CyberCash and Oracle entered into an alliance whereby Oracle will license CyberCash's suite of Internet payment options with Oracle's newly introduced electronic commerce solution.
- Also in October 1996, CyberCash and Netscape announced a technology and marketing partnership that included the licensing of CyberCash's CyberCoin technology to Netscape.
- In September 1996, CyberCash and First Data Corporation/Card Services Group announced a partnership to offer CyberCoin, an electronic coin payment service.
- In May 1996, America Online announced that it was licensing CyberCash's Wallet technology for integration into AOL's Global Network Navigator (GNN).

Company Description

CyberCash, Inc., founded in 1994, is a developer of software and service solutions that focuses on providing secure financial transaction services over the Internet, including secure credit card transactions, electronic checks, and micro transactions.

The company's CyberCash system is designed to allow banks to offer secure Internet payments to their customers.

In February 1996, CyberCash completed an initial public offering of 2.4 million shares, generating approximately \$40 million for the company.

Organization and Structure

CyberCash is headquartered in Reston (VA). The company also maintains offices in Redwood City (CA) and a development subsidiary in Bangalore (India) to reinforce U.S. development efforts.

Key executives are listed in Exhibit 1.

Employees

As of December 31, 1996, CyberCash had 220 employees worldwide.

Exhibit 1

**CyberCash, Inc.
Key Executives**

Name	Title
Daniel C. Lynch	Chairman of the Board
William N. Melton	President & CEO
Bruce G. Wilson	EVP, Revenue & Corporate Growth
Stephen D. Crocker	Chief Technology Officer
James J. Condon	Chief Financial Officer
Jeffrey Irby	VP, Sales and Marketing
Denis Yaro	VP, Products and Operations
Russell Stevenson, Jr.	Secretary and General Counsel

Company Strategy

CyberCash's main objective is to maintain its position as the leading provider of Internet payment processing services to financial institutions in the U.S. and abroad. The company believes that businesses, on-line service providers, banks, and financial institutions will be motivated to embed CyberCash software and services into their own products and services as a way of enhancing the value of their existing offerings.

In order to accomplish this objective, the company has identified the following strategic elements:

- Rapidly disseminate the enabling software for company services to individuals, businesses, and financial institutions.
- Company services are being designed to leverage the established infrastructure for existing payment methods.
- The company has entered into strategic relationships with several companies that it believes will be industry leaders in Internet commerce, and plans to continue developing strategic relationships as other key industry leaders emerge.
- The company plans to continue to develop and provide open payment solutions that are easy to adopt and that interoperate with a wide variety of hardware and software platforms.
- CyberCash is coordinating with government officials and agencies to facilitate greater understanding of the Internet commerce and regulatory issues.

Financials

CyberCash 1996 revenue reached \$127,439. The company generated no revenue from its inception in 1994 through the fiscal year ending December 31, 1995.

During 1996, the company reported a net loss of \$26.6 million. During 1995, the company reported a net loss of \$10 million (\$2.50 per share).

Research and development expenditures were \$14.9 million in 1996, approximately \$5.6 million in 1995 and \$921,000 in the period from inception to December 31, 1994.

Interim Results

Revenue for the six months ending June 30, 1997 reached \$967,756, compared to \$37,705 for the same period in 1996. Net losses for the period were approximately \$15.5 million, compared to a loss of \$10.8 million for the same period the previous year.

Revenue Analysis by Product/Service

Nearly 100% of CyberCash's 1996 revenue was derived from transaction processing and connection fees for Secure Credit Card services and consulting services. The company's Secure Credit Card service was commercially released in January 1996 and its CyberCoin service was released in September 1996.

Market Financials

CyberCash's Internet payment system is targeted at three constituencies: individuals, businesses, and financial institutions.

Key Products and Services

The CyberCash system includes consumer software, merchant software, and gateway services. The software operates with most Internet browsers, operating systems, and server platforms. The software is currently available free of charge, and the consumer software can be downloaded from the company's homepage at www.cybercash.com.

Central to the security afforded by CyberCash's products and services is an encryption system. The company uses 768-bit RSA technology combined with the banking industry standard Digital Encryption Standard to produce cryptographic protocols.

Consumer Software

CyberCash Wallet—Designed to facilitate a consumer's transition into Internet commerce using electronic components of familiar payment instruments in the physical world: credit cards, checks, and low denominations of cash

- The Wallet software resides on the consumer's personal computer and permits the consumer to enter preferred payment instruments into the Wallet.
- All transactions are encrypted from the consumer's PC to the CyberCash servers, which process transactions using the same security system that is commonly used in banks and other financial institutions for preserving data security.
- The Wallet operates on Windows, Windows 95, MacOS, and OS/2 platforms, and is compatible with major Web browser software, including Netscape Navigator, Spyglass Mosaic, and CompuServe/Spy Air Mosaic.

Internet Payment Services—Includes CyberCash's Secure Credit Card, CyberCoin, and PayNow Secure Electronic Check services:

- The Secure Credit Card service offers consumers the ability to transmit credit card data across the Internet securely, with consumer and merchant authentication. CyberCash's payment processing system is currently connected to most major credit card processors, including MasterCard's MAPP, Visa/Vital Systems, American Express, Wells Fargo Bank, Checkfree, EDS, First Data Corporation, National Data Corporation, NOVA, and First USA Paymentech.
- CyberCash CyberCoin™ service, released in September 1996, allows immediate, spontaneous transfers of small amounts of money (between \$0.25 and \$10.00) for the purchase of data, images, audio and video clips, and information-related services such as database searches and news retrieval.
- The PayNow™ Secure Electronic Check Service's pilot program was launched in January 1997. The service allows consumers to securely pay their account bills over the Internet, directly from their personal checking accounts.
- CyberCash expects to complete its pilot of the PayNow™ Secure Electronic Check Service and commercially release the service by late 1997.

- Payments received through the CyberCash system will be drawn on cleared funds on deposit with a federally insured financial institution or non-U.S. counterpart that will be verified prior to the payment being made.
- Initially, CyberCash expects the PayNow service to be used by utilities, telephone companies, and other large, institutional billers. Later releases of the service will be designed to provide secure and nearly instantaneous transfer of funds among individuals and businesses without the risk of insufficient funds or forgery.

Merchant Software

The company's merchant software is designed to integrate with existing merchant systems, to run on most of the commonly used hardware and software platforms, including Sun OS and Windows NT, and to be compatible with other merchant applications, such as Netscape's Commerce Server.

- **CashRegister Software:** CyberCash has developed merchant server software designed to facilitate automated funds collection, deposit, and other financial functions, which it distributes free of charge to merchants. As of December 31, 1996, approximately 330 merchants were using the CashRegister Software.
- **Digital NewsStand,** introduced in February 1997, is a services that provides Web publishers an easy way to offer daily or limited-time views of their most current premiere digital content without requiring the commitment of a subscription.
- **Consumers view The Digital NewsStand content** by using CyberCoin funds from their CyberCash Internet Wallet. If the consumer does not have a CyberCash Wallet, the Digital NewsStand application automatically offers the opportunity to download and activate the Wallet.
- **Initial publishers to post editions on the Digital NewsStand** are BARRON'S Online, Financial Times of London, Los Angeles Times, Bloomberg L.P., Quote.com, American Banker OnlineSM, Data Broadcasting Corp., and William O'Neit+Co. Inc.
- **Internet search and navigation services (sponsors)** that are promoting the Digital NewsStand include Yahoo!, InfoSeek, and Lycos.

Financial Institution Gateway Software

CyberCash's financial institution gateway software is designed to receive and process requests for credit card authorizations and electronic fund transfers. These requests are passed on to existing financial institution networks in the established formats and protocols, allowing the institutions to receive Internet payments without modifying their existing hardware or software systems.

Clients

A sampling of CyberCash's clients includes American Express, Frontier Technologies,

FTP Software, Quarterdeck, NETCOM, Open Market, Sun Microsystems, and Wells Fargo.

Additional companies using CyberCash technology as their Internet payment solution include the following:

- Netscape bundles CyberCash technology into its Live Payment Server.
- PSINet bundles CyberCash into its PSIWeb eCommerce Solution.
- Best Internet uses CyberCash technology as part of a payment system for its Web hosting service.
- Silicon Graphics plans to use CyberCash technology in its electronic commerce solutions.

Marketing and Sales

CyberCash's marketing and distribution strategy is focused on distributing the company's software to the maximum number of individuals, businesses, and financial institutions in the shortest time possible.

The company uses a financial institution channel, an alliance channel, and a direct channel to distribute its products.

Industry Affiliations

CyberCash is affiliated with many well-known associations. A sample of the company's affiliations are:

- CyberCash is a founding member of the World Wide Web Consortium (W3C), a group sponsored by the MIT Laboratory for Computing Science that is dedicated to advancing the capabilities of the Web and electronic commerce.
- CyberCash is a member of CommerceNet, a federally funded incubator for electronic commerce on the Internet.
- Two of CyberCash's executives are members of the Internet Architecture Board, the senior policy-setting body for the Internet. Membership is by invitation only.
- CyberCash is a member of the Interactive Services Association, the leading forum for providers of interactive electronic information and services.

Alliances

CyberCash has entered into strategic relationships with several Internet technology companies in order to establish and maintain technological leadership and to expand its marketing and distribution channels.

- CyberCash and Netscape Communications Corp. have entered into a technology and marketing relationship to broaden payment options for Internet consumers. Both are currently working together in developing international pilot projects using SET protocol for credit card transactions.
- CyberCash has licensed its CyberCoin Internet payment technology to Netscape to be bundled into future versions of Netscape products, including Netscape LivePayment server software for on-line payment processing.
- The companies will jointly market the products as well as future CyberCash payment solutions.
- Netscape is also marketing the CyberCash CashRegister software as a preferred payment solution for Netscape's SuiteSpot, Merchant System, and Publishing System products, and is providing the CashRegister software via Netscape's Web site.
- Actra Business Systems, LLC, a joint venture of Netscape and General Electric Information Systems, Inc., and CyberCash have entered into a partnership to adapt the CyberCash software for a pilot program to do business-to-business electronic data interchange transactions over the Internet.
- Microsoft Corporation is integrating support of CyberCoin and Credit Card services into the Microsoft Merchant Server, which is a Web server for doing business on the Internet.
- Sun Microsystems and CyberCash have a joint marketing program under which both companies promote each other's solutions for Internet commerce and payment systems. The JavaSoft business unit of Sun Microsystems is including payment cassettes using CyberCash's services in its Java Commerce toolkit, which allows developers to integrate CyberCash services in merchant Web sites.
- CyberCash and Oracle have established an alliance to deliver a range of secure Internet payment options to the electronic marketplace. Under the terms of the agreement, Oracle will integrate CyberCash's CyberCoin, Credit Card, and PayNow Secure Electronic Check services with Oracle Internet Commerce Server.
- Lotus Development Corporation has integrated CyberCash CashRegister in its Lotus Domino Merchant Server Product.
- Hewlett-Packard Corporation will include CyberCash Technology in the software it provides with its Web servers.
- Open Market, Inc. has licensed CyberCash's software for use on its OM-Transact Software, which is used to provide Internet merchants with transaction management services, including secure payment, order management, and on-line customer service.
- iCat Corporation has agreed to support CyberCash's payment services in its iCat Commerce Exchange Software.
- The company and RSA Data Security have a strategic relationship under which RSA has licensed CyberCash to use RSA's encryption and data security in CyberCash's software and services.

The company has also formed relationships with leading transaction processor and automated billing service

providers. CyberCash is working with these companies to include its services as part of the transaction processing services for financial institution and high volume billing clients.

- CyberCash and First Data Corporation's Card Services Group have a partnership to offer the CyberCoin payment service to financial institutions.
- Digital Insight, a provider of Internet-based home banking services, is now offering its 150 financial institution clients electronic commerce transactions on their Web sites using the CyberCash Wallet.
- Princeton TeleCom Corporation is participating in the pilot project to provide the PayNow service to billing service customers.
- International Billing Systems is also participating in the PayNow pilot program.
- Electronic Funds and Data Corporation, the operator of www.billsite.com, is working with its client, the Suffolk county Water Company, to allow their customers to pay their water bills securely over the Internet.
- Mondex and CyberCash have an alliance to allow Smart Card transactions over the Internet.
- CyberCash and E*Trade, a provider of on-line investing services, have entered an alliance to offer E*Trade investors access to both pay-per-view news stories and publications via the CyberCash Digital NewsStand without requiring a full subscription.
- CyberCash has a relationship with Transaction Network Services that provides direct electronic access to credit card processing companies and acquiring banks.

Host and merchant development partners with which CyberCash has agreements, include the following:

- America Online, Inc. has agreed to use CyberCash's services as a payment solution for its commercial hosting service, AOL Primehost.
- Coopers & Lybrand and CyberCash have entered into an alliance in which Coopers' consultants will assist their clients in developing Web sites that use CyberCash's PayNow™ Secure Electronic Check Service to accept payments via the Internet.
- UUNET Technologies, Inc. and CyberCash have an agreement whereby UUNET will use CyberCash's services as a payment solution for its commercial hosting service.
- Proximcom, a Web site designer, is assisting merchants in designing Internet stores using CyberCash's services.

Other alliances and partnerships include the following:

- In April 1997, CyberCash and Carnegie Mellon University announced and agreement commercializing a new generation of advanced micropayment technology for electronic commerce called NetBill.
- The NetBill technology enables consumers and merchants to conduct secure transactions over the Internet.
- Under the terms of the agreement, CyberCash acquires worldwide rights to commercially use and sublicense the NetBill electronic commerce technology.
- CyberCash will also work with Carnegie Mellon University to advance its research regarding network-based Internet payment systems.
- CyberCash has joined other leading companies and associations in supporting TRUSTe, an industry-supported global initiative to protect consumer privacy in electronic commerce.
- CyberCash has a strategic relationship with Intel to examine potential synergies between CyberCash's business and Intel's efforts to propagate a security infrastructure.
- CyberCash has a strategic relationship with Cisco Systems to collaborate on technological solutions to Internet commerce problems.
- Checkfree and CyberCash have a strategic relationship under which CyberCash provides its Wallet for inclusion by Checkfree into bundled electronic wallet solutions.

Competition

A sampling of potential competitors to CyberCash, by service includes the following:

Micropayment services—DigiCash bv, GC Tech, Inc., Digital Equipment Corporation, and Certo

Credit card services—VeriFone, Inc., GC Tech, First Virtual Holdings, Inc., IBM, and AT&T Corporation

Electronic check services—Financial Services Technology Consortium, University of southern California's NetCheque project.

Competition will also come from providers of other services and technology providers, including:

Home banking—Intuit, Wells Fargo Bank, and Citibank

Smart cards—VeriFone, Mondex International Ltd., MasterCard International, Visa, and American Express

Technology providers—Microsoft

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debis Systemhaus

New
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UPDATED:
10/01/1996

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Fax: +49 711 972 1999
Company Web Site:
<http://www.debis.de/debis/systemhaus>

Summary Info

President: Karl-Heinz Achinger
Status: Subsidiary
Parent: debis
Employees: 6,660 (12/1995)
Revenue: \$ 1.3 mil
Revenue (DM mil): 2.0
Year End: Dec-1996

Capability Profiles

CAPABILITY	REGION
Business Continuity Services (German)	Germany

Key Points

- Daimler Benz Interservices AG subsidiary
- Major German vendor for outsourcing, systems integration and consulting services
- Forty-eight per cent of revenue is generated by providing IT-services for Daimler Benz subsidiaries
- debis Systemhaus acquired a 75% stake in PCM Computer AG of Munich in January '96.

Company Description

debis Systemhaus, founded in 1990, is one of 54 (foreign and domestic) subsidiaries of Daimler-Benz Interservices (debis) AG, which makes up the wholly-owned IT-services unit of the Daimler-Benz group.

Since 1992 the software and services activities of debis Systemhaus have been combined with those of CAP debis Software und Systeme GmbH (CAP debis), the German subsidiary of the French CAP Gemini group.

debis Systemhaus is organised into three business areas:

- Consulting
- Implementation
- Operation.

Operations and Structure

Exhibit 1 lists the subsidiary companies that comprise debis Systemhaus.

At the end of 1995, debis Systemhaus accounted for 6,660 of debis' 10,196 employees, making it by far the largest division by headcount.

Cap Gemini holds a 19.6% share in debis Systemhaus and has enlarged its activities within debis Systemhaus from pure software development to include the complete services portfolio.

Exhibit 1

debis Systemhaus Subsidiaries

Subsidiary	Location	% Owned
debis Systemhaus DCS GmbH	Stuttgart	100%
debis Systemhaus Recovery Services GmbH	Stuttgart	100%
EDVG-debis Systemhaus Gesellschaft m.b.H. & Co. KG	Vienna, Austria	50%
debis Systemhaus GmbH	Hamburg	80.4%
debis Systemhaus GfK GmbH	Nuremberg	51%
debis Systemhaus RZ-Service 2000 GmbH & Co. KG	Hamburg	51%
debis Systemhaus Engineering GmbH	Stuttgart	100%
debis Systemhaus Computing Services Frankfurt GmbH	Eschborn	100%
HHW GmbH	Stuttgart	40%
debis IT Services France S.A.S.	Paris, France	100%
debis IT Services Italia S.p.A.	Rome, Italy	100%
ATAG debis Informatik AG	Glattbrugg, Switzerland	75%
debis IT Services Benelux B.V.	Amsterdam, Netherlands	100%
debis Systemhaus GmbH	Hamburg	80.4%
debis Systemhaus Industrie GmbH	Munich	100%
debis Systemhaus IAS GmbH	Munich	50.1%
debis Systemhaus Dienstleistungen GmbH	Düsseldorf	100%
debis Systemhaus Standard-Software-Produkte GmbH	Stuttgart	100%
debis Systemhaus Transport&Logistik Standardsoftware GmbH	Münster	100%
debis Systemhaus GEI GmbH	Aachen	100%
debis Systemhaus MEB GmbH	Weinheim	100%
debis CCS (UK) Ltd.	Milton Keynes, Great Britain	100%
debis Systemhaus sfi GmbH		83.4%
Diebold Deutschland GmbH	Berlin	100%
Diebold (Schweiz) AG		
Diebold Gesellschaft m.b.H.	Eschborn	100%
	Zurich, Switzerland	100%
	Vienna, Austria	

Source: debis

Company Strategy

debis Systemhaus has become an important player on the German market for providing data center outsourcing and systems integration services. The company is now looking for partners in order to increase its presence in international markets. debis Systemhaus sees this as an important step in making itself more attractive to international firms requiring homogeneous support across multiple countries.

Another strategic aim is to increase its percentage of non-captive revenues. These have now reached 52%.

Financials

As a wholly-owned subsidiary of debis, debis Systemhaus does not publish separate accounts.

debis' total revenues in 1995 were DM 11.8 billion, up 9% on 1994's DM 10.8 billion.

debis' Financial Services Division accounts for the majority of the group's revenues in 1995.

In 1995, debis Systemhaus had revenues of DM 1,990 million, 11% up from DM 1,792 million in 1994.

Market Analysis

debis Systemhaus is represented in most industries with the majority of its business being generated within the discrete and process manufacturing, national government and transportation sectors.

The bulk of its revenues are derived from processing services, professional services and systems operations.

Less than half (48%) of debis Systemhaus' revenues are generated by Daimler-Benz organisations. This "captive" proportion of revenues is excluded from INPUT's market analysis.

Exhibit 2 below shows an analysis of debis Systemhaus' 1995 revenues by INPUT delivery mode.

Exhibit 2

**debis Systemhaus
1995 Market Analysis by Delivery Mode
\$ millions**

Delivery Mode	Revenue	Per cent
Systems Integration	60	5%
Professional Services	467	35%
Outsourcing	360	27%
Processing Services	70	5%
Network Services	13	1%
Captive Revenue	357	27%
Total Software & Services	1,327	100%

*INPUT Estimates
Geographic Markets*

debis Systemhaus does not publish a geographic breakdown of its revenues, although debis provides the analysis reproduced in Exhibit 3 for the group as a whole.

Exhibit 3

1995 Market Analysis by Geographic Region (DM billions)

debis Regions	Revenue	Per cent
Germany	6.25	53%
Other EC countries	1.06	9%
North America	3.78	32%
Other regions	0.71	6%
Total Revenues	11.8	100%

Source: debis

The North American revenues are understood to derive from debis' financial services operations in the commercial vehicle business - debis Systemhaus itself only offers its outsourcing services outside Germany.

debis Systemhaus has over the last few years been endeavoring to extend its activities from those of a German subsidiary relying on captive business from its parent to that of an independent international services company. Since 1991, the proportion of "external" (i.e. non- captive) business has risen from 27% to 52% by the end of 1995.

Acquisitions/Divestitures

Acquisitions/divestitures in recent years include:

- Acquisition of 50% stake in ATAG Informatik AG (Switzerland).
- Acquisition of 51% stake in Volmac Facility Centre (Netherlands) from CAP Volmac, thus extending coverage to the Benelux countries. The stake was increased to 100% in January 1995.
- Acquisition of the remaining 45% of debis Systemhaus Recovery Services.
- Acquisition by Diebold subsidiary of remaining shares in SZ-Diebold Managementberatung, Hungary.
- Take-over of Mercedes Benz computer centre in Le Chesnay, France and the founding of debis Traitement Informatique S.A.
- Take-over of Mercedes Benz computer centre in Rome and the founding of debis CCS Italia S.p.A.
- Sale of Diebold S.A., France, to Gap Gemini
- Sale of computer centres in Brussels and Utrecht to Mercedes Benz.
- Acquisition of a 75% stake in PCM Computer AG of Munich, effective January '96. PCM Computer AG specializes in developing desktop solutions and desktop services management.

Employees

Employee numbers at the end of 1995 stood at 6,660, indicating a 9% increase from the 1994 level of 6,129.

Key Products and Services

The six business areas in which debis Systemhaus operates include:

- Consulting

- Information systems management / computer and communications services
- Software development projects
- Software products
- Training
- Business Transformation Services

Consulting

This product segment is served by the Diebold group as well as various CCS personnel.

Diebold specialises in:

- Strategic Consulting
"corporate strategy optimisation"
- Company Organisation
"management structure optimisation"
- Informatics
"information application optimisation"

Information System Management / Computer and Communication Services

debis Systemhaus CCS Computer-Communication-Services offers a broad spectrum of information systems management activities, including comprehensive services targeted at:

- Computer centres
- Networks
- Decentralised systems

Services include:

- Systems management
- Network management
- Processing
- Back-up/continuous availability
- Systems integration
- Equipment services.

Software Projects / Software Products / Training

These three areas are combined under the sub-division CAP debis Software und Systeme.

Offerings include:

- Custom solutions for finance/lease
- Application development for personnel and financial systems
- Custom solutions and standard products for sales management, including sales consulting, fleet planning and spare part disposition components
- Solutions for tax consultants and accountants
- Business systems for garages and sales companies
- Standard solutions for logistics and distribution, especially for transportation companies.

Training is offered in the following areas:

- Product specific seminars for
- CASE
- 4 GL
- CAD/CAE systems.
- Technical seminars for
- Programming languages
- Business systems
- Data processing
- Telecommunications
- Databases
- Project management
- EDP methodologies.

In addition to the new Business Transformation Systems designed especially to improve efficiency in administrative agencies and business enterprises, debis Systemhaus recently introduced the following new sector-specific innovations at CeBIT '96:

- Financial Services: A new data base marketing solution which allows for proactive customer advisory service in banks and insurance companies, as well as a call center system which would improve customer relations.
- Trade and Logistics: For the first time, debis Systemhaus introduced the prototype of an online virtual department store. This offers an attractive selection of goods and allows customers to order on line. Also, a special solution for electronic data exchange, and a three-phase model demonstrating the applications of data warehouse concepts.
- Energy Economy: Applications for company management and maintenance as well as a special system for billing on a client/server basis.
- Public Sector: Integral solutions for changes in organisations, information systems and behaviour in the form of business transformation systems.
- Telecommunications: Multimedia billing, subscriber management and transfer technologies as a solution to business-to-business communications.
- Transport and Communications: A dynamic information system which provides information on current traffic situations.
- Production: Workflow automatization techniques, debis TOP and outsourcing.

Recent Projects

Effective April 1, 1996, debis Systemhaus took over the computer center services of Schöller Lebensmittel GmbH & Co. KG of Nuremberg, one of the largest computer centers in northern Bavaria. In this five year contract, worth DM 51 million., debis Systemhaus will also take over the printing services for Schöller Lebensmittel GmbH & Co. KG.

In June of 1995, Henkel KGaA of Düsseldorf engaged debis Systemhaus to procure, install and maintain 9,800 data terminals in a three year contract worth over DM 40 mil. debis Systemhaus aims to decrease the waiting period after orders have been placed by taking over the ordering process, in-process-storage, and the configuration of the standard PCs and printers. In addition to this, they will also be delivering the systems to the users.

In September 1994, debis Systemhaus took over the computer center services of Hüthig GmbH of Heidelberg. This five year, DM 15 mio. contract comprises the construction of a client/server based IT environment, as well as using the SAP R/3 modules for administrative tasks in areas such as finance, personnel and controlling.

Debis Systemhaus also provides services for certain vertical markets and has set up the following sector-specific centres:

- Financial Services
- Aerospace
- Energy Economy
- Manufacturing
- Outdoor Media and Publishing
- Trade and Logistics
- Telecommunications
- Public Sector
- Traffic/Transportation.

Alliances

The following shows some of debis Systemhaus' partnerships:

1992

- Strategic alliance initiated with Cap Gemini, under which the latter's German subsidiaries were ceded to debis Systemhaus
- debis Systemhaus IAS GmbH of Munich (formerly CAP debis IAS GmbH) founded as joint venture with Messerschmitt-Bölkow-Blohm GmbH
- debis Systemhaus RZ-Service 2000 GmbH & Co. KG. (Hamburg) formed as a joint venture with Axel Springer Verlag
- debis Systemhaus GfK GmbH (Nuremberg) founded as joint venture with Gesellschaft für Konsumforschung GfK.

1995

In cooperation with Mosolf Logistik GmbH of Kirchheim, debis Systemhaus is working on providing integral solutions for logistic process chains for customers. This includes advisory service for newly developed logistic chains, reengineering, and the conversion of logistic chains to outsourcing of logistics.

INPUT Assessment

The future of debis Systemhaus is strongly dependent on the corporate strategy of the Daimler-Benz corporation. However, with captive revenues being a diminishing part of debis Systemhaus' business the company is beginning to find its independence.

Another key strategic issue is debis' relationship with Cap Gemini. Even though the 1996' reorganisation has given Daimler Benz more formal influence on Cap Gemini, a clear statement on the international coexistence of debis Systemhaus and Cap Gemini has never been announced.

The most likely scenario is that debis Systemhaus will get world-wide responsibility for outsourcing services, while Cap Gemini will carry out the Business Integration projects. Starting with foreign Daimler Benz subsidiaries, debis Systemhaus has gradually built up outsourcing capacities in various countries. Today non-captive outsourcing already accounts for approximately \$100 Million in revenues outside Germany.

debis Systemhaus also needs to consider the emerging possibilities in the multimedia and

information superhighway markets. Competitors like Mannesmann VIAG, RWE, Thyssen and Veba have already undertaken significant investments into network infrastructures around which services offerings are about to emerge.

In the professional services market debis Systemhaus is well established in some key vertical markets such as manufacturing, financial services, logistics and the public sector. Furthermore debis Systemhaus has got a high reputation in all SAP-related services including its R/3-outsourcing offerings.

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**DecisionOne***New
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Company Web Site:
<http://www.decisionone.com>

Summary Info

Chairman:	Peter Grauer
President/CEO:	Steve Felice
Status:	Public
Parent:	
Employees:	5,500 (01/1999)
Revenue:	\$ 805.7 mil
Year End	Jun-1998

Key Points

- On January 28, 1999 DecisionOne announced a restructuring plan intended to restore revenue growth and improve financial performance.
- On September 14, 1998 DecisionOne announced the resignation of Kenneth W. Draeger who held the title chairman of the board. Peter Grauer, Managing Director of DLJ Merchant Banking, will assume the role of board chairman.
- On April 15, 1998 DecisionOne announced the appointment of Stephen J. Felice and chief executive officer. Felice will continue to hold the title of president. Felice succeeds Kenneth W. Draeger, who will retain the position, chairman of the board.
- On August 7, 1997, DecisionOne consummated a merger with an affiliate of DLJ Merchant Banking Partners II, L.P.

Company Description

In October of 1995, the DSI (now DecisionOne) completed the acquisition of Bell Atlantic Business Systems Services, Inc. (BABSS), with approximately 4,400 employees and more than \$500 million in sales. BABSS possessed a breadth of services, market presence, blue-chip customer base and over 30 years of experience in the computer service business that complemented and strengthened the company. Upon the acquisition, the company changed its name to DecisionOne.

On August 7, 1997, DecisionOne consummated a merger with an affiliate of DLJ Merchant Banking Partners II, L.P.. The DLJ Group currently holds approximately 87.4% or 10.9 million of the outstanding shares of DecisionOne's common stock.

DecisionOne offers a single source solution for virtually all of their computer maintenance and technology support requirements, including hardware maintenance services, software support, end-user/help desk services, network support and other technology support services. DecisionOne is an independent (i.e., not affiliated with an original equipment manufacturer, or OEM) provider of these services across a broad range of computing environments, including mainframes, midrange and distributed systems, work groups, PCs and related peripherals.

- The company supports more than 15,000 hardware products manufactured by more than 1,000 OEMs. Through its three customer support centers, DecisionOne provides support for most major operating systems and more than 100 shrink-wrapped software applications.
- DecisionOne services more than 51,000 customers at over 182,000 sites across the U.S. and Canada.

Organization and Structure

DecisionOne believes that its service infrastructure provides it with a significant competitive advantage. Components of the infrastructure include centralized dispatch (service call management and Customer Support Centers), inventory logistics (a tiered structure of parts inventory, based on usage), and service technology (proprietary technology for service planning, support, and delivery).

DecisionOne has approximately 3,900 technical personnel located in more than 150 service locations in North America. The

company operates repair depots located in Malvern (PA), Boston (MA), Milwaukee (WI), and San Francisco (CA).

Company Strategy

Due to a declining trend in revenue, sales, and earnings, DecisionOne announced a corporate restructuring plan in late January 1999. The restructuring plan focused on three key components: heightened focus on selected customer segments, significant cost reductions, and modifications to its financial structure. The plan also included a reduction of the company's workforce across North America by more than 500 employees.

Customer Focus

DecisionOne's operations, from sales to service delivery, would be focused on providing information technology (IT) support services to three customer groups. The groups are:

- Enterprise accounts or large corporate customers
- Medium sized accounts or the middle market, and
- Alliance customers which include OEMs, software publishers, system integrators, distributors and resellers.

Cost Reductions

The restructuring plan includes a series of cost-reduction programs intended to lower DecisionOne's cost structure. They include:

- realigning operations
- reorganizing sales, and
- streamlining support operations

Financial Changes

DecisionOne received additional investments in the form of senior, unsecured notes from DLJ Merchant Banking in support of the restructuring plan.

Financials

DecisionOne's fiscal 1998 revenue reached \$805.7 million, a 3% increase over fiscal 1997 revenue of \$786.0 million. Net income was \$(183.1) million, down 689% from \$31.1 million for fiscal 1997.

In the five-year summary on the following page, financials reflect the results of Servcom from September 1, 1994, BABSS from October 20, 1995 and certain assets of the U.S. computer service business of Memorex Telex from November 15, 1996.

Source of Revenue

DecisionOne's primary source of revenues is contracted services for multivendor computer maintenance and technology support services, including hardware support, end-user and software support, network support and other support services. Approximately 89% of the company's revenues during fiscal 1998 were derived from maintenance contracts covering a broad spectrum of computer hardware.

DecisionOne Corporation Five-Year Financial Summary (a) (\$ Millions, except per share data)

Item	Fiscal Year				
	1998	1997	1996	1995	1994

Revenue	\$805.7	\$786.0	\$540.2	163.0	\$108.4
•Percent change from previous year	3%	46%	231%	50%	-5%
Income (loss) before taxes	\$(183.1)	\$31.1	\$20.8	\$41.4	11.1
•Percent change from previous year	-689%	50%	-50%	273%	327%
Net income (loss) (b)	\$(183.1)	\$31.1	\$18.9	\$42.5	\$10.1
•Percent change from previous year	-689%	65%	-56%	321%	195%
Earnings (loss) per share (c)	\$(9.91)	\$(0.01)	\$0.74	\$1.84	\$0.45
•Percent change from previous year	-99200%	-101%	-60%	309%	190%

(a) The Selected Financial Data presented includes the results of operations and balance sheet data of the Company, including the following acquisitions: Servcom from September 1, 1994, BABSS from October 20, 1995 and certain assets of the U.S. computer service business of Memorex Telex from November 15, 1996.

(b) The year ended June 30, 1994 includes income taxes based on an effective tax rate substantially less than the 40% effective tax rate for the year ended June 30, 1996 and the 41% effective tax rate for the year ended June 30, 1997. The years ended June 30, 1998 and 1995 includes a \$15.8 million and \$23.1 million, respectively net benefit arising from the recognition of future tax benefits of tax loss carryforwards and temporary timing differences.

(c) Pro forma net loss and loss per common share information for the fiscal year ended June 30, 1998 is presented to reflect the merger and related transactions as if these had occurred on July 1, 1997.

Interim Results

For the three months ending September 30, 1998, DecisionOne's revenue reached \$196.0 million, a 3% decrease over \$11.0 million for the same period in 1997.

Market Financials

DecisionOne sells its services to four types of customers:

- Large businesses that have complex computing support needs and typically maintain a data center, distributed computing, and work group environments
- Medium-sized businesses that rely primarily on distributed systems for their computing needs
- Small businesses that principally use LANs and WANs for computing
- Computer manufacturers, resellers and systems integrators that require support for large numbers of end users.

Geographic Markets

DecisionOne provides service worldwide.

- In order to provide international service to its multinational customers, DecisionOne supplements its North American infrastructure with strategic alliances in selected international markets.
- DecisionOne maintains relationships with International Computers Limited and FBA Computer Technology Services. DecisionOne licenses many of its proprietary multivendor support tools to FBA and to ICL Systems Service. As a result, the company is able to offer its multinational customers service in Western Europe, Asia and Australia.

Acquisitions

In March 1998, DecisionOne acquired the assets of General Diagnostics Incorporated, a hardware depot repair firm. This transaction added eight additional depot repair centers spread across the United States to the company's network of repair centers.

In October 1997, the DecisionOne acquired the network service and support business of Gandalf Technologies, a provider of ISDN and frame relay remote access equipment. As a result, the Company acquired key network technical expertise to support its growing network service portfolio.

In January 1997, DecisionOne's Canadian subsidiary acquired the personal computer equipment service and maintenance business of Xerox Technology Services Canada. The acquisition includes the assets and service contracts, as well as a majority of the workforce. Xerox Technology Services provides hardware maintenance services, and desktop and network support.

In November 1996, DecisionOne purchased the assets of the U.S. service business of Memorex Telex Corporation, a hardware manufacturer and computer service company, with annual revenues of more than \$100 million.

In October 1995, DSI acquired Bell Atlantic Business Systems Services (BSS) from Bell Atlantic Corporation for approximately \$250 million.

- By mid-1995, BSS had grown to be among the largest independent providers of multivendor computer maintenance and technology support services in the U.S.
- BSS had revenue of \$457.7 million and net income of nearly \$8 million for the year ending December 31, 1994.
- The operations of BSS and DSI have been merged to form DecisionOne.
- In December 1995, DecisionOne recorded a restructuring expense of \$7 million, including \$6.9 million relating to leases of duplicate facilities and \$0.1 million relating to severance of employees.

In September 1995, DSI acquired the multivendor service business of Storage Technology.

In April 1995, DSI purchased substantially all of the assets of Intelogic Trace, Inc., a major independent service organization based in San Antonio (TX).

In November 1994, DSI purchased certain assets of tape-drive manufacturer Acknowledge, Inc. of Natick (MA).

In August 1994, DSI acquired the assets of IDEA Servcom, Inc. for \$29.5 million. Servcom was a leading independent supplier of maintenance for computer systems, PCs, networks and peripherals from IBM, Wang, Qantel, and Decision Data/IIIS at more than 70,000 customer sites throughout the U.S. and Canada.

In July 1994, DSI acquired the computer maintenance assets, inventory and customer maintenance agreements of Tri-Office Automation, Inc. of Cincinnati (OH).

Prior to June 1994, DSI, under the former name of Decision Data Services, Inc., acquired 19 local and regional service companies as part of its strategic growth plan. The acquisitions included: Aerotech, Baystate, Computer Service Group, Continuity Services, C-Tech Systems, D.P. Enterprises, Econocom Services, First Resource Inc., J. Marlowe Computer Service, DOK/LDI, Officenet, Professional Data Service, Inc., Pride, Quality Computer, Rodax, Service Assurance Corp., Simplified Service, TMC, and Wiscom.

In 1990, Bell Atlantic's Sorbus, Inc. subsidiary acquired Control Data's third-party maintenance unit and renamed the unit Bell Atlantic Business Systems Services.

Employees

In January 1999, announced a corporate restructuring plan which included a reduction of the company's workforce by more than 500 people.

As of January 1999 DecisionOne had approximately 5,500 full-time and part-time employees.

Key Products and Services

DecisionOne's service portfolio and infrastructure is designed to offer its customers a single-source solution for virtually all of their computer maintenance and technology support requirements. The portfolio includes hardware support, software support, network

support, and planning and consulting services for customers with mainframe, midrange, and distributed computing environments. DecisionOne also provides multivendor parts repair and refurbishment and inventory management services as part of its logistics services portfolio, targeted at OEMs, resellers and other third-party service providers.

DecisionOne's marketing strategy is focused on services in three different market segments:

- Enterprise customers (including the federal government), which have complex computing environments including data centers and tens of thousands of end users
- Middle Market customers, which have included large, medium and small businesses, primarily with desktop computing systems, and
- Strategic Alliance customers, which include hardware and software original equipment manufacturers who utilize DecisionOne for a wide variety of services, including depot repair, field service and support, and telephone technical support services.

Integrated Services for the Distributed Computing Desktop Environment (One To 1)

DecisionOne's One To 1 offering for the workgroup environment is an integrated package of life cycle services designed to reduce the cost of workgroup computing, and increase system availability and end-user productivity. One To 1 is aimed at providing desktop support that reduces a company's total cost of ownership. The Company believes One To 1's strength lies in its ability to provide customers with a single-source solution for effectively supporting large, complex desktop environments.

One To 1 includes:

Network Services: NetworkOne services help customers manage the total life cycle of their complex network environments, from designing systems to maintaining network hardware and wide area and local area networks.

Consulting Services: ExpertOne services provide access to desktop support experts who can analyze a desktop environment, recommend solutions, manage their implementation, and audit the results.

Technical Support Services: CallOne services provide help desk support on more than 150 shrink wrapped desktop software packages and a wide range of operating systems. Support ranges from basic and network support for corporate end-users, to advanced operating system support for systems administrators, to complete support for vertical markets and software developers.

Hardware Services: DecisionOne provides hardware maintenance, installations, moves, adds and changes to thousands of different desktop hardware devices, from hundreds of different manufacturers.

Asset Management Services: Through AssetOne, the DecisionOne can track customers' information technology asset data, such as PC location and number of software licenses, and provide information that leads to better asset management practices.

Services for the Mainframe Environment (MainOne)

In May 1997 DecisionOne announced a complete suite of support services for the data center, called MainOne. MainOne Services extend beyond critical hardware support to services that meet the strategic needs of data center management, from planning and consulting through operating systems and management support.

DecisionOne offers a single source for maintaining the many brands and types of mission-critical equipment found in the data center, through a full suite of services that includes:

- remedial and preventative maintenance on the mainframe and associated peripheral devices
- equipment moves, adds and changes, including data center relocations
- migration assistance for customers changing processors and/or software operating systems
- assistance to customers in managing and consolidating vendor relationships
- environmental, financial and disaster recovery services, and
- consulting expertise to assist customers in reducing data center costs, improving equipment performance, and increasing processor capacity.

Services for the Midrange Environment (MidrangeOne)

MidrangeOne Services are designed to meet the support requirements of complex midrange computing environments, including:

- remedial and preventative maintenance on midrange equipment from IBM, Compaq/Digital Equipment Corporation, Sun Microsystems, Hewlett-Packard, and Memorex Telex, as well as on a full range of peripheral devices from hundreds of different manufacturers
- problem resolution and migration support for midrange operating systems

- services to support remote systems operations and backups
- partnerships with industry leaders for specialized services such as disaster recovery, environmental auditing, and equipment financing, and
- advice from midrange experts to assist with increasing system capacity, improving performance, and lowering cost of ownership.

Logistics Services (LogisticsOne)

LogisticsOne Services provide information technology companies such as OEMs, VARs, and other third-party maintainers with alternatives to internal parts repair and inventory pipeline management. DecisionOne provides three distinct services under LogisticsOne:

Hardware services: DecisionOne repairs and refurbishes computer parts and assemblies at its network of fifteen depot repair center across the United States.

Systems Configuration Management Services: DecisionOne assists customers with technology transitions, from evaluating the current disposition of equipment through configuring machines for a new technology roll-out.

Inventory Life Cycle Management Services: These services, support both in-production or end-of-life parts, and provide materials management support for the entire life cycle of a product.

Services Technology

DecisionOne's proprietary service technologies include the following:

- International Support Information Systems (ISIS) is a database accessible to DecisionOne's customer service engineers that includes diagnostic and symptom fix data for thousands of products, remote support capabilities for large IBM systems, and service planning information.
- SERVICE EDGE is a PC-based system installed at the customer's site that monitors error messages and collects and reports service data to help customers predict potential system failures and provide system performance information.
- MAXwatch is an on-site program for Digital products. A similar product, MAX400, is available for IBM AS/400 systems.

Clients

DecisionOne services more than 51,000 customers at over 182,000 sites across North America.

A representative list of DecisionOne's larger customers includes: American Airlines, Aetna Life Insurance Company, Avon Products, Bell Atlantic Network Services, Bell Communications Research, Cessna Aircraft Company, Chevron Information Technology Company, Compaq Computer, County of Sacramento, E.I. du Pont de Nemours & Company, EDS, EMC², Emerson Electric Company, Exxon Corporation, Flserv, General Electric Company, Genix, Grand Metropolitan Incorporated, Kaiser Health Plan Foundation, Lockheed Information Technology Company, NationsBanc Services, Newport News Shipbuilding and Dry Dock Co., Nissan Motor Corporation, Northrop Grumman Corporation, Philip Morris, PNC Bank Corporation, Pratt & Whitney, Sequent Computer Systems, State of Wisconsin, Sun Microsystems, SunGard Recovery Services, The International Bank for Reconstruction and Development, and the U.S. Department of the Army.

Marketing and Sales

DecisionOne's sales force consists of approximately 300 professionals, which markets its services through direct and indirect sales channels. DecisionOne's sales staff are aligned under the following sales organizations:

- Corporate Accounts focus on enterprise customers, which include large and multinational corporate customers.
- Territory Managers and Telesales focus on middle market customers.
- The Federal group is responsible for sales to government units.
- The Strategic Alliance Sales team develops relationships with hardware and software OEMs.

Alliances

DecisionOne has many strategic alliances to provide seamless services in the U.S. and internationally. Some key relationships included Cray Research, Data General Corporation, EMC², GE Capital Computer Leasing, Sequent Computer Systems, SunGard Recovery Services, Inc., Sun Microsystems, MicroAge, Inc., International Computers Limited (ICL), and FBA Computer Technology Services.

Competition

DecisionOne considers its principal competitors to include IBM and its affiliate Technology Service Solutions, Compaq/Digital Equipment Corporation, and the multivendor service divisions of certain other OEMs.

Other competitors include Vanstar Corporation, Entex Corporation and Steam International, and various service providers.

INPUT Assessment

DecisionOne's strengths include:

- No system bias
- Depth and breadth of services
- Experience in diverse information technology environments

Challenges include:

- Restoring revenue growth and improving financial performance
- Managing future growth and to adapting to changes
- Rapid technological change and compressed product life cycles

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Deloitte & Touche Consulting Group

New
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UPDATED:
03/30/1998

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U.S.

Phone:
(203) 761-3000

Company Web Site:
<http://www.dtonline.com/>

Summary Info

Status:	Subsidiary
Parent:	Deloitte & Touche LLP
Employees:	10,000 (12/1997)
Revenue: *	\$ 2,100.0 mil
Year End	Dec-1997

Capability Profiles

CAPABILITY	REGION
SAP Services	Indonesia
SAP Services	Malaysia
SAP Services	Singapore
SAP Services	Thailand

Key Points

- Deloitte & Touche Consulting Group is a division of Deloitte & Touche LLP and provides management consulting services such as business process reengineering and change management.
- Service lines are comprised of Change Management, Client Server Solutions, and Reengineering for Results
- Deloitte & Touche Consulting Group focuses on seven industries: manufacturing, public utilities, health care, public sector, financial services, consumer intensive businesses, and telecommunications and electronic services.
- Deloitte & Touche Consulting Group has traditionally made acquisitions to expand its expertise in the areas of systems architecture, networking, systems integration, programming, and enterprise applications solutions.
- Deloitte & Touche Consulting Group/ICS (Deloitte Consulting/ICS) offers the Baan and SAPTM services within Deloitte & Touche Consulting Group.
- Deloitte & Touche Consulting Group/DRT Systems (Deloitte & Touche/DRT) installs client/server systems, transaction processing systems, and database management systems.
- The Deloitte & Touche Consulting Group relies on Praxis, its United Kingdom-based software engineering company, to provide custom solutions for industry-specific business needs.

Company Description

Deloitte & Touche LLP is part of Deloitte Touche Tohmatsu, a global provider of professional services.

Deloitte & Touche Consulting Group is one of the world's largest consulting services practices with more than \$2.1 billion in revenue in 1997. The firm provides solutions that better enable businesses to operate with effectiveness.

Deloitte Consulting/ICS provides Baan and SAP software implementation with business process reengineering (BPR), complementary software products, education and training, and change management services. The company currently has more than 250 clients worldwide.

Deloitte Consulting/DRT Systems offers technical consulting and implementation services in North America.

Organization and Structure

Deloitte & Touche Consulting Group is organized functionally and by industry.

The organization is divided into three functional lines: Change Management, Client Server Solutions, and Reengineering for Results.

Industry alignment is organized into Manufacturing, Public Utilities, Health Care, Public Sector, Financial Services, Consumer Intensive Businesses, and Telecommunications and Electronic Services.

Deloitte & Touche Consulting Group operates in 126 countries.

Company Strategy

Deloitte & Touche Consulting Group aims to "bring business systems to life" through a full range of services that can be scaled to fit any project, regardless of scope or size.

Deloitte & Touche Consulting Group is offering business transformation on three levels: Strategic Transformation, Operations Transformation, and Information Management Transformation.

Strategic Transformation may be subdivided into:

- Competitive strategy
- Public policy, restructuring, & privatization
- Systems for growth
- Value solutions

Operations Transformation includes:

- Reengineering
- Change leadership
- Distribution and logistics
- Customer/product profitability in regulated industries
- Solutions for growth
- Program management
- Value solutions

Information Management Transformation includes:

- Strategic technology transformation
- Enterprise application systems
- Networking
- Client server solutions

Geographic Presence

Deloitte & Touche Consulting Group

Deloitte & Touche Consulting Group operates in 126 countries in roughly the same locales as Deloitte Touche Tohmatsu.

Deloitte & Touche/DRT

Deloitte & Touche/DRT has 11 offices in North America. Current locations are Albany (NY), Boston (MA), Chicago (IL), Cleveland (OH), Houston (TX), Kansas City (MO), Los Angeles (CA), Nashville (TN), New York (NY), Ottawa (Ontario, Canada), and Toronto (Ontario, Canada).

Deloitte & Touche/ICS

Deloitte & Touche/ICS divides its operation into three regional geographies: Americas, Europe, and Asia Pacific.

In the Americas, there are three offices in Canada (Calgary, Montreal, and Toronto) and 11 offices in ten locations across the United States. The U.S. locations are as follows: Atlanta (GA), Bellevue (WA), Chadds Ford (PA), Cleveland (OH), Foster City (CA), Houston (TX), Oakbrook Terrace (IL), Phoenix (AZ), Santa Ana (CA), and Waltham (MA).

In Europe, Deloitte and Touche/ICS has offices in Brussels, Belgium; Copenhagen, Denmark; Seine, France; Heidelberg, Germany; Milano, Italy; Luxembourg; Eindhoven and Amsterdam in the Netherlands; Oslo, Norway; Lisboa, Portugal; Madrid, Spain; Stockholm, Sweden; Oberwil, Switzerland; and Bracknell in the United Kingdom.

Employees

Deloitte & Touche Consulting Group has approximately 10,000 employees at 1997 year-end. About 2,400 of the above total is with Deloitte & Touche/ICS.

Key Products and Services

Deloitte & Touche Consulting Group has worked closely with its parent company to develop software useful to its accounting and audit practices. Examples include:

- Visual Assurance - monitors corporate control and compliance
- AuditSystem/2 for Internal Audit - an automated audit workpaper system

Deloitte & Touche Consulting Group has created the Client Server Solution Center in Minneapolis, Minnesota to better deploy client/server technology in the reengineered business process.

Deloitte & Touche/ICS

Deloitte & Touche/ICS is the Baan and SAP practice for the Deloitte & Touche Consulting Group. Deloitte Consulting/ICS offers consulting, Baan and SAP implementation, education and training professional services as well as SAP complementary software products.

Business Transformation Aids

Prior to implementation of Baan or SAP software, *ValuePrint™*, the Deloitte Consulting/ICS proprietary business case development tool, offers an accurate determination of the potential value provided from systems investments.

The *IndustryPrint™* methodology is designed to be a comprehensive set of blueprints for delivering the accumulated consulting expertise of Deloitte Consulting/ICS to the client's enterprise transformation. Using best practices from within the client industry as well as across industries, *IndustryPrint™* models business processes— which, in turn, may be used to leverage ERP software to support those processes. Using *IndustryPrint™* as a blueprint accelerates the implementation of the enterprise application software by rationalizing the implementation process and minimizing complexity. The stated goal is to reduce costs and to reduce time to go live.

Implementation Services

SAP

FastTrack for SAP is Deloitte Consulting/ICS' proprietary rapid implementation methodology that provides a

structured path to quick knowledge transfer and client self-sufficiency at any scale. *FastTrack* for SAP also incorporates Deloitte & Touche's Reengineering for Results™ methodology.

- Developed specifically for SAP software, *FastTrack* for SAP is an integrated methodology, using a building -block approach with built-in checkpoints.
- *FastTrack* for SAP has five stages—scoping and planning, visioning and targeting, redesign, configuration, and testing and delivery.
- With its *FastTrack* for SAP methodology, Deloitte Consulting/ICS covers the full development life cycle, including project management, technical infrastructure, system integrity, change management, training and documentation.

Deloitte Consulting/ICS has launched an internal SAP support network—*KnowledgeLink* for SAP—that serves as a front-line of pooled expertise where field consultants can look to for additional support.

- This initiative is organized by functional expertise and rotates full-time staff in and out of the field every 12 to 18 months, resulting in more knowledgeable, practical reality-based consultants.
- *KnowledgeLink* for SAP globally applies SAP best practices for each major business process and corresponding SAP module. The functions/modules include sales and distribution (SD), materials management (MM), production planning (PP), production planning for the process industry (PP-PI), finance (FI), costing (CO), electronic data interchange (EDI) and technical infrastructure (Basis, workflow, ALE).

Deloitte Consulting/ICS established a SAP Solutions Center for SAP R/3, located adjacent to SAP's Western Region headquarters in Foster City (CA), which provides a showcase of SAP implementations and best practices. Clients, prospects, consultants and SAP account executives can come to the SAP Solutions Center to see and experience real-world applications of SAP software. It addition, the center provides access to all of Deloitte Consulting/ICS' products, tools, templates, industry models and methodologies.

Deloitte Consulting/ICS has opened a Microsoft NT Competency Center in Toronto (Canada), a complete solution center providing expertise for R/3 customers when evaluating and implementing the SAP suite of business applications running on Microsoft SQL Server 6.0 and Microsoft Windows NT Server 3.5

Deloitte Consulting/ICS has also established an EDI Center of Expertise (COE) for development and support of EDI activities and implementations.

Baan

FastTrack for Baan is the syntheses of two integrated methodologies: the *FastTrack* methodology developed by Deloitte Consulting/ICS and Baan's Target project methodology.

- Developed specifically for Baan software, *FastTrack* for Baan is an integrated methodology, using a building -block approach with built-in checkpoints.
- *FastTrack* for Baan has five stages—scoping and planning, global business modeling, detail process design, final model validation, and testing and delivery.
- With its *FastTrack* for Baan methodology, Deloitte Consulting/ICS helps channel the decision-making process along the issues of project management, reengineering with Baan, information technology, process and system integrity, change leadership, and training and documentation.

Education and Training

Deloitte Consulting/ICS provides a range of training services that complement the training provided by Baan and SAP, from managerial overviews to highly intensive SAP workshops for project teams.

- Training is in the context of business processes, as opposed to teaching software features and functions. Training programs are highly modular so that customers can select what they need to know to perform their jobs.

- Deloitte Consulting/ICS' training methodology is based on defined curricula. The Electronic Performance Support Solution (EPSS) uses intranet technology and/or the Internet to provide clients' employees with instant access to training materials and performance support information.
- Training is available both at the client site and at Deloitte Consulting/ICS' Business Technology Center, a dedicated training facility in Chadds Ford.

Complementary Software Products

Deloitte Consulting/ICS develops and employs the following products and tools to help customers expand SAP's capabilities:

- *ARIS-Toolset* is a BPR tool that automates the development of business process models. It is a Windows-based graphical user application that integrates data, functions, processes and organizational structure into a three-dimensional perspective. ARIS-Toolset automates the development of business process models.
- *Universal Portable Interface (UPI)* is a proprietary graphical tool for implementing interface transactions between SAP and legacy applications. It is consistent with both EDI and non-EDI requirements and eases the conversion of legacy data to SAP R/3 systems.
- *OpenScan /1* is a combination of barcoding and radio frequency technologies that validates and sends data in real time from plants or warehouses directly to the appropriate SAP application.

Deloitte & Touche Consulting Group/DRT Systems

In the United States, some system and software related service lines are offered through Deloitte & Touche Consulting Group/DRT Systems. DRT Systems' service lines are:

- Architected solutions
- Architecture consulting
- Custom development
- Legacy support
- Package implementations
- Contract services

Oracle and PeopleSoft

Oracle solutions are offered through Deloitte & Touche Consulting Group/DRT Systems. PeopleSoft solutions are carried directly by Deloitte & Touche Consulting Group.

Clients

Clients include Allied Signal, Cadbury/Motts Canada, Colgate Palmolive Europe, Elf Lubricants, Fujitsu Network Communications, HiPerformance Systems, Landmark Graphics, McGaw (a division of B. Fraun America), Microsoft, Norsk Hydro, Novartis Agro, SBS Group, and Tulip Computers,

Marketing and Sales

Alliances

Deloitte & Touche Consulting Group has alliances with Acquion; AutoTester, Inc.; Digital; Haht; Hewlett-Packard; IntelliCorp; I2 Technologies; Manugistics; Mercury Interactive; Numetrix; One Wave, Inc.; QAD; and Sterling Commerce.

Partnerships

Deloitte & Touche Consulting Group/ICS has partnerships with Baan and SAP.

Competitors

Deloitte & Touche Consulting Group's primary competition comes from Arthur Andersen, Andersen Consulting, Coopers & Lybrand, Ernst & Young, KPMG and Price Waterhouse.

Assessment

Deloitte & Touche Consulting Group considers its strengths to include:

- Global strength
- Wide-ranging industry expertise in enterprise transformation
- Comprehensive technology understanding

INPUT feels that of the above mentioned strengths, industry expertise is the most valuable to Deloitte & Touche Consulting Group today. The next twelve months are critical in proving that Deloitte & Touche Consulting Group delivers innovative solutions through emerging, often web-based packages. Coupled with its efforts to promote the stability of the firm, the ability to take a client to the forefront of technology could make Deloitte & Touche Consulting Group increasingly a firm of choice. With Deloitte & Touche/ICS, the consulting group's most important asset of technological expertise, concentrating solely on SAP and Baan, this seems unlikely to happen.

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**DETECON GmbH****UPDATED:**
08/01/1996**Headquarters**

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Germany

Phone:
+49 228 700 0

Fax:
+49 228 700 3789

Company Web Site:
<http://www.detecon.com>

Summary Info

CEO:	Horst Gellert
Status:	Limited
Employees:	1,018 (12/1995)
Revenue:	\$ 95.0 mil
Revenue (DM mil):	187.0
Year End	Dec-1995

Key Points

- DETECON offers a complete range of support services including strategic consulting, preliminary studies, planning and implementation services
- DETECON clients are telecommunication suppliers, suppliers of public or private networks, financial institutions and non-profit organisations
- Since the founding of DeTeMobil, a mobile telephone company, in July of 1993, revenues for DETECON and DeTeMobil were no longer consolidated
- DETECON shareholders include Deutsche Telekom (30%), Deutsche Bank (25%), Dresdner Bank (25%) and Bau- und Handelsbank (20%)

Company Description

Deutsche Telepost Consulting (DETECON) GmbH is an independent and impartial consulting company specializing in communications and information technology. DETECON enjoys a leading position in the dynamic telecommunications market, having completed more than 1000 projects in over 100 countries since its founding in 1977.

Depending on current needs and degree of development, DETECON offers its clients a complete range of support services. Some of which include:

- Strategy Consulting
- Preliminary Studies
- Planning and Implementation

Operations and Structure

DETECON has founded a number of subsidiaries in order to provide a firm foundation for regional services support and to consolidate sales markets over the long term while expanding the original fields of business activity to embrace special sectors within the telecommunications market.

Due to the onset of activities in foreign countries, DETECON has formed joint ventures with a number of companies so as to provide a firm foundation for regional services support in these areas. Among these cooperative ventures are the following:

- DETECON AL SAUDIA Co. Ltd., specializing in Operations and Turnkey Projects
- DETECON TELSİM Mobil Telekomünikasyon Hizmetleri A.S., specializing in GSM Cellular Phone Networks

DETECON has its main company locations in:

- Berlin
- Darmstadt
- Dresden

DETECON's key executives are shown in Exhibit 2.

Financials

Exhibit 3 provides a five-year summary of DETECON's financials.

The sharp fall in revenue of 39% in 1994 was due to the fact that revenues for DETECON and DeTeMobil were no longer consolidated after July of 1993.

Exhibit 2

DETECON
Key Executives, 1995

Name	Function
Horst Gellert	CEO, DETECON GmbH
Franz Heiner Ventzki	Managing Director

Source: DETECON

Exhibit 3

DETECON
Five Year Financial Summary
DM Million

Year	1991	1992	1993	1994	1995
Revenue	137	212	297	180	187
Annual Growth Rate	N/A	55%	40%	-39%	4%
Revenue per Employee	0.124	0.134	0.174	0.174	0.185

Source: DETECON / INPUT

Market Analysis

An analysis of DETECON's revenues by delivery modes is provided in Exhibit 4.

Exhibit 4

DETECON
European Revenues by Delivery Mode,
1995, \$ Millions

Delivery Mode	Revenues in \$ Millions	Share
Professional Services	48	50%
Turnkey Systems	19	20%
Systems Integration	28	30%
Total Software & Services	95	100%

Source: INPUT
Estimates Percentages are rounded

Exhibit 5 shows DETECON's revenues by industry sectors.

Exhibit 5

DETECON
European Revenues by Industry Sector, 1995, \$ Millions

Industry Sector	Revenues in \$ Millions	Share
Telecommunications	62	65%
Government	22	25%
Other	11	10%
Total Software & Services	95	100%

Source: INPUT
Estimates Percentages are rounded

Geographic Markets

Exhibit 6 provides DETECON's country revenues.

Exhibit 6

DETECON
Revenues by Country,
1995, \$ Millions

Country	Revenue in \$ Millions	Share
Germany	48	38%
Rest of Europe	48	38%
Saudi Arabia/Kuwait	16	14%
Asia	7	6%
Africa	3	2%
Saudi Arabia/Kuwait	3	2%
Total Software & Services	125	100%

Source: INPUT
Estimates Percentages are rounded

Employees

Today, 1,018 professionals work within DETECON worldwide. Exhibit 7 provides DETECON's development in human resources over the course of three years.

Exhibit 7

**DETECON
Human Resources**

Year	1993	1994	1995
Employees	1,712	1,035	1,018
Annual Growth Rate	N/A	-40%	-2%
Revenue per Employee in \$Million	0.073	0.121	0.123

Source: INPUT

Key Products and Services

Exhibit 8 lists DETECON's key software products..

Exhibit 8

**DETECON
Software Products, 1995**

Product	Description
NET-64K, NET-128K	Internet Access through DETECON locations
NET-ADMIN	Internet Administration through DETECON
NET-DOMAIN	Domain Reservation for one year through DETECON
NET-NEWS	Supplement to DETECON NET Products
WWW-CS	World Wide Web Container Services
FTP-CS	FTP-Container Services
NEWS-CS	News Container
MAIL-S	Mail Services
DIAL -P	Dial Systems for Online Suppliers

Source: DETECON

Recent Projects

Since 1992, DETECON has provided consulting services to the Telephone Organization of Thailand (TOT), helping implement its telecommunications development projects.

DETECON has carried out a typical restructuring and management project in the Republic of

Guinea, helping to reorganize the postal and telecommunications structures there.

The German federal state of Brandenburg engaged DETECON to improve its telecommunications infrastructure for state agencies. This involved working out a general concept study and approving the individual components since 1983, DETECON has been providing technical support to the Arab Republic of Egypt National Telecommunication Organization (ARENTO) in the expansion of the Cairo telephone network.

Beginning in 1993, DETECON has been advising the COMTELCA (Comision tecnica Regional de Telecomunicaciones) in the expansion and integration of national and regional telecommunications networks in Central America.

In 1987, DETECON was engaged by the Deutsche Bundespost Telekom to plan, implement market its new digital GSM network D1. Since 1989, DETECON has been primarily involved in marketing the overall range of Telekom mobile services.

Clients

DETECON advises and supports postal and telecommunications authorities, public and private network operators, companies involved in the telecommunications industry, major corporations, banks and financial institutions, and development aid organizations. The following list shows major clients of DETECON:

- ARENTO
- Deutsche Telekom
- TOT
- ETCO
- ESCO
- German Aeronautics
- PTT Ministry Guinea
- TELECOM ASIA

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EDS

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UPDATED:
02/24/1998

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972-605-6545

Company Web Site:
<http://www.eds.com>

Summary Info

Chairman/CEO:	Richard H. Brown
President:	Jeff Heller
Status:	Public
Parent:	
Employees:	110,000 (12/1997)
Revenue:	\$ 16,900.0 mil
Year End	Dec-1997

Key Points

- During 1995, EDS exceeded \$12 billion in revenues for the first time in the company's 34-year history.
- On June 7, 1996, General Motors (GM) common stockholders approved EDS' split-off from GM. EDS common stock has begun trading on both the New York Stock Exchange and the London Stock Exchange. EDS management expects the split-off will allow EDS the flexibility it needs to enter new markets, forge new alliances, and offer a widening range of capabilities.
- EDS signed its largest non-GM outsourcing contract ever during 1994—a \$3.2 billion agreement with Xerox Corporation.
- More than 30% of EDS' 1995 revenue came from outside the U.S. The company continues to expand internationally, with operations in Europe, Japan, Asia/Pacific, Africa, South America, Canada, and Mexico.
- During 1995, EDS merged its management consulting unit with newly acquired consulting firm A.T. Kearney to create a leading management consulting firm.

Company Description

EDS, founded in 1962, is a world leader in the application of information technology (IT), providing information processing, systems management, systems integration, systems development, consulting, software products, and process management services to customers worldwide. EDS serves public and private organizations in banking and finance, communications, energy, government, health care, insurance, manufacturing, retail, and transportation.

- EDS currently has more than 95,000 employees and more than 8,000 clients in all 50 states and more than 40 other countries.
- EDS' largest client is General Motors Corporation (GM) and its subsidiaries, which contributed approximately 31% (\$3.89 billion) to EDS' 1995 revenue.

On June 7, 1996, GM common stockholders approved EDS' split-off from GM, allowing holders of GM Class E (GME) stock to exchange their shares for EDS common stock on a one-for-one basis.

- According to Chairman and CEO Les Alberthal, the split-off is intended to accomplish three critical objectives for EDS:
 - o To improve EDS' ability to participate in major strategic alliances
 - o To remove limitations on EDS' ability to obtain business from companies that compete with GM or its subsidiaries
 - o To enhance EDS' access to the capital necessary for investment in its future growth
- EDS will remain GM's principal IT supplier through a renewable 10-year outsourcing plan; EDS will also have opportunities to expand its relationship with GM by bidding on some services not covered by the Master Service Agreement. GM will have some flexibility to competitively bid and potentially outsource a limited portion of its IT services to other suppliers.
- EDS has announced a new board of directors and has appointed Gary J. Fernandes, formerly an EDS senior vice president, as vice chairman of the company. Jeff Heller, also previously an EDS senior vice president, is now president and chief operating officer.
- EDS also announced that it would incur a pretax nonrecurring charge (in the range of \$500 million to \$750 million) in the second quarter of 1996 in connection with a voluntary early retirement offer to some of its U.S. employees and a limited

work force realignment. The company stated that it was also considering certain other restructuring actions.

- Prior to June 1996, EDS, acquired by GM in October 1984, operated as an independent subsidiary of GM. EDS' performance formed the base from which any dividend on GME common stock was declared. These earnings included income earned from services provided by GM and its other subsidiaries.

Organization and Structure

EDS is organized to support individual industries and the business needs of its customers. The company's current organization structure is summarized in Exhibit A.

Coinciding with its split-off from GM, EDS has reorganized its leadership structure.

- EDS' Leadership Council was replaced by two separate panels--The Executive Council, EDS' chief strategy and policy-making group overseen by chairman and CEO Les Alberthal, and the Global Operations Council, which is responsible for operating strategies and other business issues under the direction of Jeff Heller, president and COO.
- EDS' basic organizational philosophy and structure of strategic business units and strategic support units, established in 1989, remain in place.
- Sales and operations are the responsibility of the strategic business units, each oriented to a particular industry or geographic region.

EDS' organization features four components that are summarized in Exhibit B and include the following:

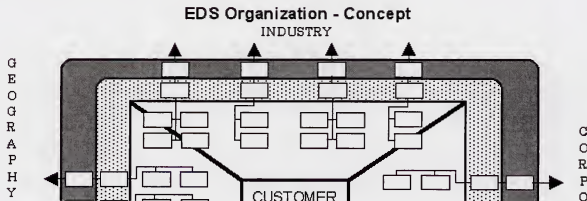
- *Industry*-- The Industry component is central to the organizational framework because industry knowledge is key to creating value for EDS customers.
- *Geography/Culture*-- The Geography/Culture component is focused on the geographical area being operated within, providing a local face to a global EDS.
- *Infrastructure*-- Strategic Support Units (SSUs), such as Information Processing Center (IPC) Operations, Field Services, and Applied Engineering, as well as additional support units in areas such as employee development, purchasing, marketing, planning, and consulting, provide core capabilities to all of EDS.
- *Corporate*-- The Corporate component provides essential support and staff services.

There are four levels of corporate governance within each of the four above components as follows:

- *Unit*-- The Strategic Business Unit (SBU) and SSU levels are the fundamental building blocks of EDS and are closest to the customer. SBU functions include marketing and business development, sales and sales support, systems engineering, products and services, business operations, and financial responsibilities. SBUs are responsible for working with other SBUs and SSUs to find the resources, products, and services that best meet customers' needs.
- *Group*-- Group Executives develop five-year business plans, coordinate marketing and selling functions and monitor and ensure teamwork, quality, and customer satisfaction. In the Industry, Infrastructure and Corporate components, Group Executives are responsible for developing global strategy within their areas. Group Executives in the Geography/Cultural component are responsible for the strategy within their region.
- *Global Operations Council*-- Headed by EDS' president, the Global Operations Council oversees EDS operating strategies and other business issues.
- *Executive Council*--Headed by EDS' CEO, this council develops EDS' strategy and establishes policies.

Headquartered in Plano (TX), EDS has more than 850 locations worldwide.

EDS' various joint ventures are listed under the Alliances section of this profile.



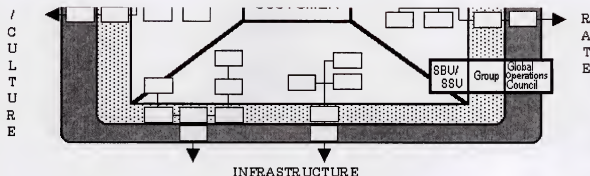


Exhibit B
EDS Organization Components

Component	Group	Unit(s)
Industry	General Motors	Planning and Integration; GM Europe; Advanced Technology; Powertrain and Delco Electronics; North American Vehicle Sales & Marketing; Operations and Staff Support; AGT and Electro-motive; N.A. Vehicle Platforms; GM Delphi Automotive Systems Engineering & Technical Support; GM Asia/Pacific Operations; GM International
	Manufacturing	Manufacturing Suppliers (Food, Retail) & Engineering Services; High Technology; Unigranics; Diversified Manufacturing; Process Manufacturing; Transportation Vehicle & Heavy Equipment; Aerospace & Defense; Commercial Services
	Financial	Large Financial Institutions; Financial Services; Brokerages and Investment Houses; Real Estate; Capital Services; Commercial Insurance
	Government Systems Group	Government—Services; Government—Military; Government—State and Local
	Travel and Transportation	Air Transport; Travel Services; Freight
	Communications	Global Telecommunications; Media; Personal Communications; Infotainment; Internet & New Media; Video Lottery Technology
	Energy	Natural Gas and Liquids; Petroleum; Mining; Chemicals
	Health Care	Health Care; Life; State Health Care
Geography/Culture—Americas	U.S.	Government—Federal; Government—Military; Government—State and Local; Health Care; Government Services
	Non-U.S.	Canada; Mexico
Geography/Culture—Europe	Europe—Central	Austria, Czech Republic, Germany, Hungary, Poland, Switzerland
	Europe—North	U.K., Benelux, and Scandinavia
	Europe—South	France, Spain, Italy, Portugal, Iberian
Geography/Culture—Japan	Japan	Japan
Geography/Culture Asia/Pacific	Asia/Pacific	Korea; Australia and New Zealand; Thailand; Taiwan; Hong Kong; China; Singapore; Malaysia
Geography/Culture—Africa	Africa	Africa
Geography/Culture—South and Central America		Venezuela, Brazil, Argentina

Infrastructure	Business Development	Americas; Asia/Pacific and Japan; Europe; Africa
	Client/Server Technology	Client/Server Account Operations; Technical Services; Electronic Commerce; Office of the Chief Information Officer
	Management Consulting Services	Global Practice Support; Mergers and Acquisitions; Technology Advisory Services Consulting Group; GM, Financial and the Americas Consulting Group
	Customer Business Services	Account Services; Field Services
	Employee Development	Compensation; Industry Training; Leadership Development; Quality; Staffing; Technical Development; Global Diversity
	Infrastructure Services	Global Network Management; Communications Service Delivery; Regional Operations
	Market Development	Marketing; Marketing Support; Sales Leadership; Strategic Planning
	Operating Services	Operating Services—Client/Server; Operations; Operations—Europe
	Research & Development	Research & Development
	Technology Architecture	Business Application of Technology and Communications Services; Systems & Methods; Computing and Communications Architecture
Corporate	Audit; Communications & Public Affairs; Controller; Government Affairs; Legal; Treasurer; Procurement; Tax; Administration	

Company Strategy

EDS is structured in a matrix comprised of SBUs and SSUs representing the industry, geographic, and technical aspects of EDS. Business efforts are led by EDS' vertical industry groups that have the specific industry knowledge necessary to fully support any customer in a given market.

As part of its branding initiative, EDS is attempting to create a single brand identity across all geographies and industries that it serves.

- EDS believes that it can enhance its customers' productivity and improve their performance. The branding initiative will highlight specific examples where EDS has achieved this for its customers.
- EDS is also emphasizing its ability to be more responsive to rapidly changing market dynamics as a newly independent company, and will form new alliances and launch new ventures.

Outsourcing is the largest and most mature of EDS' services. EDS has been providing some version of outsourcing since its founding in 1962.

EDS is using its experience in outsourcing and its technological infrastructure to expand beyond traditional IT to provide management consulting and business operations (process management).

- During the past six years, EDS has been positioning itself as a partner to its clients. It has constructed contracts that share the risk and reward with the customer.
- EDS has originated a performance-driven customer relationship called CoSourcingSM in which EDS' involvement with its customers is expanded to provide IT services and business performance improvement skills—combining EDS' capabilities and customer capabilities. EDS brings its global technical infrastructure and expanded knowledge of how IT can be applied to business processes to add value to customers' business. The customers bring the knowledge of their business and the core competencies that have enabled them to build their businesses. Under CoSourcing, EDS and the customer collaborate to plan and work to achieve shared goals.

plan and work to achieve shared goals.

To date, EDS has established successful businesses in document processing, electronic commerce, customer services, desktop products and services, logistics, product design, data mining, and data warehousing, to name a few.

EDS' technological resources include:

- EDS*NET, one of the largest privately owned networks in the world
- 14 Information Processing Centers (IPCs)
- 78 data center mainframe sites (industry or customer specific)

Financials

EDS' 1995 operating revenue reached \$12.42 billion, a 25% increase over \$9.96 billion for 1994. Net income rose 14%, from \$821.9 million in 1994 to \$938.9 million in 1995.

A five-year financial summary follows:

EDS Five-Year Financial Summary (\$ Millions, except per-share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue					
- GM	\$3,891.1	\$3,547.2	\$3,323.7	\$3,348.5	\$3,362.2
- Other	8,531.0	6,412.9	5,183.6	4,806.7	3,666.3
• Percent change from previous year	\$12,422.1	\$9,960.1	\$8,507.3	\$8,155.2	\$7,028.5
	25%	17%	4%	16%	17%
Income before taxes					
	\$1,467.0	\$1,284.2	\$1,131.3	\$1,000.8	\$893.7
• Percent change from previous year	14%	14%	13%	12%	13%
Net income					
	\$938.9	\$821.9	\$724.0	\$635.5	\$547.5
• Percent change from previous year	14%	14%	14%	16%	10%
Earnings per share					
	\$1.96	\$1.71	\$1.51	\$1.33	\$1.14
• Percent change from previous year	15%	13%	14%	17%	10%

EDS management attributes 1995 revenue increases to the following:

- EDS signed more than \$10.1 billion in new business during the year. For the year, revenues from non-GM sources increased 33% to represent nearly 69% of total revenue, compared with 64% of total revenue in 1994 and 61% of total revenue in 1993.
- For 1995, nearly 30% of total revenue was generated outside the U.S. European non-GM revenue increased 43% in 1995 to more than \$2 billion, due primarily to business in the U.K. Other international non-GM revenue rose more than 42% over 1994, primarily due to business in Japan and New Zealand.

Revenue Analysis by Product/Service

INPUT estimates that EDS' \$5.8 billion in 1995 U.S. non-GM information services revenue was derived approximately as follows:

Systems operations	60%
Systems integration	20%
Professional services	15%
Software products/turnkey	5%
<hr/>	
	100%

Interim Results

Revenue for the three months ending March 31, 1996 reached \$3.367 billion, a 21% increase over \$2.776 billion for the same period in 1995. Net income for the period rose 11% to \$218.8 million, compared with \$196.8 million in the corresponding period a year ago.

- EDS' non-GM revenue rose 28% over 1995 and accounted for more than 71% of total first quarter revenue.
- Revenue from outside the U.S. was up 39% and contributed 32% to total revenue.

Market Financials

Approximately 36% of EDS' total 1995 revenue was derived from its parent companyGM. The remaining 64% of total revenue was derived from clients in various industries, including banking and finance, insurance, manufacturing and distribution, government, retail, communications, transportation, and energy.

A two-year summary of EDS' source of worldwide revenue by industry market (including GM) follows:

EDS Two-Year Source of Revenue Summary (\$ Millions)

Industry Market	Fiscal Year	
	1995	1994
Manufacturing	47%	49%
Financial	14%	14%
Government	12%	10%
Communications	8%	7%
Health	7%	8%
Travel/Transportation	4%	5%
Energy	3%	4%
Other	5%	3%
Total	100%	100%

Geographic Markets

Approximately 70% of EDS' total 1995 revenue was derived from the U.S., 21% from Europe, and 9% from other international sources.

- Approximately \$5.8 billion (47%) of EDS' total 1995 revenue was derived from U.S. non-GM customers, \$2.0 billion (16%) from European non-GM customers, and \$734.6 million (6%) from other international non-GM customers.
- A three-year summary of geographic sources of revenue is shown on the following page.

EDS Three-Year Source of Revenue Summary

Three-Year Source of Revenue Summary (\$ Millions)

Geographic Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.						
- Outside customers	\$5,794.9	47%	\$4,611.2	46%	\$4,004.5	47%
- GM and subsidiaries	<u>2,926.1</u>	23%	<u>2,764.4</u>	27%	<u>2,574.5</u>	30%
Total U.S.	\$8,721.0	70%	\$7,375.6	73%	\$6,579.0	77%
Europe						
- Outside customers	\$2,001.5	16%	\$1,308.1	13%	\$911.6	11%
- GM and subsidiaries	<u>659.2</u>	5%	<u>523.4</u>	5%	<u>511.2</u>	6%
Total Europe	\$2,660.7	21%	\$1,831.5	18%	\$1,422.8	17%
Other international						
- Outside customers	\$734.6	6%	\$493.6	5%	\$267.5	3%
- GM and subsidiaries	<u>305.8</u>	3%	<u>259.4</u>	3%	<u>238.0</u>	3%
Total Other (a)	\$1,040.4	9%	\$753.0	8%	\$505.5	6%
Interest and other income	--	--	\$92.3	1%	\$54.5	--
Total	\$12,422.1	100%	\$10,052.4	100%	\$8,562	100%

(a) Differences due to rounding.

Acquisitions

In May 1995, EDS acquired FCI Incorporated, a management and IT services firm based in New York. The acquisition was accounted for as a purchase.

- Combining the resources of EDS and FCI has provided EDS a means of directing its business initiatives in the securities industry.
- FCI is known throughout the investment community as an expert in international securities operations and systems.

In August 1995, EDS purchased the check processing operations of the Federal Home Loan Bank of Cincinnati.

- Under the agreement, EDS provides NOW account/clearing, check deposit, and lockbox processing services to FHLB's 150 member institutions through FHLB's existing processing centers in Cleveland, Cincinnati, and Nashville.
- EDS claims to be the industry's largest nonbank check processor, handling more than 2.5 billion items annually around the world, including financial services in the U.S., Argentina, Australia, Germany, New Zealand, and the U.K.

In September 1995, EDS acquired A.T. Kearney for an estimated \$600 million, including approximately \$300 million in cash, notes, and contingency payments as well as a stock incentive position of approximately seven million shares of GME stock, which will vest over a long period for certain A.T. Kearney people joining the new entity.

- A.T. Kearney, founded in 1926, is a global management consulting firm with worldwide headquarters in Chicago (IL). At the time of the acquisition, A.T. Kearney had approximately 2,000 consulting and administrative employees in offices throughout the Americas, Europe, and the Asia/Pacific region and estimated 1994 revenue of \$345 million.
- EDS has merged its management consulting unit with A.T. Kearney to create a new subsidiary--A.T. Kearney, Inc.--with more than 3,600 employees, more than \$500 million in annual revenue, and offices in 28 countries.
- A.T. Kearney remains headquartered in Chicago and has a separate board of directors consisting of EDS and A.T. Kearney executives. A.T. Kearney CEO Fred Steingraber is CEO of the merged firm and Gary Fernandes, senior vice president of EDS, serves as chairman of the board.

In November 1995, EDS acquired LINC Computer, Inc. of Tokyo (Japan).

- LINC, now known as CSG Japan, is a computer services company that provides desktop products and services to foreign affiliates and local companies in Japan. CSG's services include the design, testing, and implementation of local-area and

affiliates and local companies in Japan. CSG's services include the design, testing, and implementation of local-area and wide-area networks, desktop outsourcing, and the resale and integration of personal computer products. CSG also provides help desk services and PC maintenance.

- CSG, with annual revenue of about \$20 million, has a staff of 100 employees that includes professionals of more than 10 different nationalities, 70% of whom are bilingual.

In February 1995, EDS acquired the Lakewood Corporation, a Greenfield (NH)-based developer of mortgage processing software. The Lakewood open client/server-based system handles all aspects of the mortgage-lending process, including prequalification, origination, registration, processing, underwriting, closing, and secondary marketing, and runs on a variety of platforms, from laptops to desktop PCs and large-scale system servers.

In January 1995, EDS acquired Varitel Video, a privately owned post-production company.

- Varitel, based in Los Angeles and San Francisco (CA) with 115 employees, is a full-service film and video production and post-production company specializing in applying analog and digital technology in film, videotape, and computer graphics. Clients include all the major motion picture studios, television networks, and advertising agencies.
- The acquisition further expands EDS' customer base, provides new avenues for leveraging its core capabilities and allows EDS to take advantage of emerging multimedia content management opportunities.

A summary of 1994 acquisitions follows:

- In November 1994, EDS acquired GCS Limited, one of the largest suppliers of IT services to the government sector in New Zealand, for \$28.2 million. EDS officials value the business at \$270 million over the next five years.
- In October 1994, EDS acquired the outsourcing contracts, software products, and computer facilities of Newtrend L.P. of Orlando (FL).
- In August 1994, EDS acquired ICR International Consulting and Rechenzentrum GmbH, a German professional services and outsourcing firm. The acquisition strengthened EDS' presence in the commerce, banking, insurance, and communications technology sectors.
- In May 1994, EDS acquired Databank, one of the largest information technology companies in New Zealand, providing software development and support, disaster recovery, facilities management, and network planning services. EDS officials estimated that the value of the business over five years would be at least \$350 million.
- In April 1994, EDS acquired Eurosept, a leading French consulting firm providing a range of management consulting services related to the development and implementation of business strategies. The firm had more than 350 clients in the financial services, insurance, public utilities and logistics industries.
- In April 1994, EDS acquired F.C. Consultoria, a Brazilian consulting firm with extensive experience in business assessment, change management, purchasing, and manufacturing systems consulting. Customers included a number of multinational corporations in the manufacturing, consumer and electronic products, and agricultural business industries.
- In April 1994, EDS and Harvard Community Health Plan (HCHP), partners in Interpractice Systems Associates L.P., announced that EDS had obtained exclusive rights to market, develop, and implement the IPS clinical information system.
- In January 1994, EDS acquired a majority interest in Gruppo S&M, a leading IT services company in Italy providing design and customization of applications software and systems integration services primarily to the banking and finance, manufacturing, and public sector markets.

Divestitures

In February 1996, EDS sold the disaster recovery business of its Newtrend division to SunGard Data Systems.

Employees

EDS currently has more than 95,000 employees worldwide.

Key Products and Services

EDS' range of services include the following:

- Systems Management--Involves the ongoing management and operation of information technology components (computing, communications, applications, and/or data). It may involve resources ranging from specialized systems applications to the customer's entire information technology function, including facilities and personnel.
 - Systems Operations/Facilities Management (FM)--EDS assumes virtually all of the data processing and communications requirements for the customer over a multiyear term. Responsibilities include the design and implementation of business information systems, the staffing of the data processing functions, the development and maintenance of necessary software, and the operation of all computer activities.
 - Processing Services--EDS provides data processing services from an EDS data center, billed on a predetermined minimum monthly basis, usually based on the number of transactions.

minimum monthly basis, usually based on the number of transactions.

- o In 1995, EDS introduced Renaissance™, a desktop outsourcing and management service that is customized to meet customers' business requirements. The core services offered under Renaissance are consulting and design, systems engineering, integration, deployment of hardware and software, installation, ongoing desktop support, training, and network systems management. Renaissance is a flexible service offering that allows EDS to align client/server development strategy with customers' business goals for enterprise distributed systems management.
- Systems Integration—EDS designs, implements, and installs the appropriate combination of hardware and software integrated into a total system designed to fulfill the customer's processing and communications requirements.
- Systems Development (Professional Services)—EDS provides system design, custom/contract programming, migration, and joint development services to meet customers' specific business needs for functional specifications and applications.
- Consulting (Professional Services)—These services include the development, refinement, and coordination of strategies to support a client's business direction, impact business performance, and improve operating results. Consulting is offered for business planning, business process design, technology strategy and planning, and change management.
- Product—EDS provides software and hardware in several areas—for example, computer-aided design, local government management, and EDI services.
- Process Management—Outside the sphere of information technology, EDS also provides ongoing responsibility for the direction and operation of one or more business processes within a client organization. This includes resources (acquisition, deployment, and use of people, facilities, technology, support functions and supplies), integration (linking business processes) and performance (accountability of performance measures). As a fiscal agent, EDS is responsible for all data processing functions as well as other administrative duties. These duties may include processing and paying claims as well as ensuring proper coordination of benefits.

Strategic Support Units

While the SBUs concentrate on their specific industries, SSUs are creating products and services that can be distributed horizontally across SBUs through tailoring to meet the needs of the different industries EDS supports.

Client/Server Group

This group was created by EDS to leverage capabilities across the industries and geographies that EDS serves. The global organization develops and manages distributed computing infrastructures that support customers' business strategies worldwide.

Services provided through the Client/Server Group include Renaissance, information and physical security services, training and development, customer service outsourcing, electronic commerce, electronic data interchange, and corporate information systems.

Internet Services

During the third quarter of 1995, EDS introduced a suite of Internet offerings to establish a presence for its business customers on the World Wide Web. Services include facilitating content management, storage, computing, and connectivity; measurement and analysis; infrastructure services featuring secure Internet connectivity and application integration for business users at EDS customer sites; and interactive banking and financial services, including electronic bill presentation, payment, and messaging.

The Internet and New Media organization supports a recent offering—WebVault—an integrated approach that transforms an enterprise network into a company's own intranet. WebVault links popular desktop Web browsers with applications and databases from the customer's network so that many areas of the customer's network can be browsed as easily as the World Wide Web.

EDS was named by Netscape as one of four major systems integrators qualified to help corporate customers establish a presence on the Internet and set up Internet systems using Netscape products.

Electronic Commerce

Electronic Commerce focuses on improving the flow of information between trading partners and consumers.

Three EDS Electronic Commerce units focus on consumer transaction processing.

- Electronic Financial and Information Transaction (EFIT) services provide a single point of financial settlement of these transactions for numerous national and local networks.
- Card Processing Services (CPS) process transactions initiated through the use of ATM/debit cards, MasterCard, Visa, JCB and private-label cards. Since EDS' entrance into the credit card processing market in 1989, EDS has become one of the largest credit card processors, with more than 16 million cardholders representing 350 financial institutions in support of more than 300,000 merchant locations nationally.
- Interactive Transaction Partners (ITP) is a joint venture between EDS, U S WEST and France Telecom to provide branded nationwide interactive electronic transaction services available on a private level or branded basis to financial institutions, merchants, and other firms with a consumer or small business franchise. Services include on-line bill payment, interactive banking, electronic bill presentation, and interactive messaging.

The fourth unit--Electronic Commerce Services--focuses on business-to-business communications and the integration of technologies, such as electronic data interchange (EDI), electronic funds transfer (EFT), and electronic catalogs and bulletin boards.

A summary of EDS' products and services by industry market follows:

Government--Federal

EDS provides systems management and systems integration services to federal, state, and local government customers.

Federal government contract examples include the following:

- A five-year contract valued at \$332 million with the U.S. Navy to provide local-area and enterprise network products and services under the PC LAN+ contract. EDS is supplying departments and agencies of the federal government with servers, office automation software, peripherals, and networking communications equipment, and related services.
- Supplying procurement and testing as a subcontractor to BTG, Inc. on a major five-year contract from the U.S. Air Force under IC4I (the Integration for Command, Control, Communications, Computers, and Intelligence contract)
- A five-year contract with the U.S. Air Force to provide acquisition, delivery, and engineering services support for technology products to all U.S. government organizations in the command and control and intelligence communities
- A five-year contract to provide software development and support services to the U.S. Army Information Systems Software Center under the Umbrella 3 program. EDS will assist with communications; analog/digital systems design and analysis; and software reuse, design, analysis, development, testing, maintenance, extension, and installation support for personnel, financial management, force development, transportation, and command and control information systems.
- Providing nonpersonal software support services for the U.S. Army Information Systems Selection and Acquisition Agency, including software communication services, analog/digital systems design and analysis, software development, testing, maintenance, and installation
- Designing, implementing, and operating a loan-origination system for the U.S. Department of Education's William D. Ford Direct Loan Program

Other federal government clients include the Customs Service, the Department of Defense, the U.S. Immigration and Naturalization Service, the U.S. Department of Agriculture, the FAA, NASA, and the IRS.

Government--State and Local

EDS' State and Local Government business unit, headquartered in Herndon (VA), provides consulting, systems development, systems integration, systems management and enterprise process management services to various state government agencies in 29 states. EDS has more than 100 local government customers nationwide. EDS supports a range of areas, from human services to law enforcement and public safety, electronic commerce, and outsourcing.

Services are provided to state and local government in areas such as:

- Automated fingerprint identification
- Automated law enforcement, including parking and red light citation management
- Electronic data interchange
- Desktop services management programs
- Geographic information systems
- Electronic benefits transfer
- Electronic eligibility verification
- False alarm management
- Motor vehicle licensing and registration
- Public safety and law enforcement
- Statewide accounting
- Sports licensing

Recent contract examples include the following:

- A two-year contract extension from the California Department of Social Services to continue managing and operating the case management, information, and payroll system for the State of California's In-Home Supportive Services Program
- A five-year contract with the State of North Carolina to implement and operate a client/server point-of-sale system to automate the sale and issuance of hunting and fishing licenses and boat registrations
- A seven-year contract with the City of Charlotte (NC) to provide process management services to the Charlotte-Mecklenburg Police Department in support of the city's Alarm Ordinance
- An expansion to the GAIN Employment Activity and Reporting System contract with the Los Angeles County's Department of Public Social Services

Government--International

Recent international contracts include the following:

- A ten-year contract to provide data center operations and technical support functions to the U.K.'s Department of Social Security
- EDS is providing operations management, data services, technical support, applications development and maintenance, and catalog services to the British Army's Logistics Information Services Agency.
- EDS will develop and implement a new traffic management support system for the Dutch Ministry of Public Works and Water Management's Transport Research Center.
- Under the largest information technology contract ever in the Asia/Pacific region, EDS will provide IT services to more than 140 agencies and subagencies of the South Australian government. The nine-year contract is valued at more than \$500 million.
- EDS is reengineering the City of Rome's accounting system to manage expenditures by measuring productivity, cost, and efficiency of city services.

Banking and Finance

In addition to providing a full continuum of services including consulting, systems development, systems integration, systems management, and process management, EDS also offers a range of industry-specific products and services to financial institutions worldwide. With more than 5,000 financial services customers worldwide, EDS supports full-service commercial banks, money-center banks, consumer finance companies, investment bankers, regional banks, brokerage/securities firms, community banks, thrifts, mortgage banking and real estate financial services firms, and credit unions.

EDS uses a range of technologies and applications to assist financial institutions in delivery, customer products, business management, and back-office support. Products and services include:

- Enterprise-wide customer information systems
- Loan/credit origination and processing systems
- Branch automation applications, including voice, teller, and platform
- Item and remittance processing
- Cross-border funds transfer and currency exchange
- Consumer asset management
- Consumer service technology
- Desktop management services
- Business process improvement

EDS has a strong market presence as a provider of IT services to credit unions. It currently processes information for more than 11 million credit union members and more than 1,900 credit unions.

EDS also offers a range of capabilities in electronic transaction services that support the exchange of monetary value and information. This includes card processing services, ATM deployment and support, EDI capabilities, and various other interactive retail delivery mechanisms.

EDS is one of the largest credit card processors in the U.S., with more than 16 million cardholders representing 350 financial institutions in support of more than 300,000 merchant locations. EDS also offers three types of commercial cards--purchasing, corporate, and business.

EDS is the leading driver of ATMs in the U.S., providing access to more than 50 networks and 80,000 ATMs worldwide. These ATMs currently support not only financial transactions, but also purchase of travelers checks, prepaid phone cards, and postage stamps.

A variety of interactive terminals, including POS/electronic cash register authorization devices, PCs, kiosks, and telephones, are supported, along with development of new delivery capabilities. Home banking, electronic benefits transfer, smart cards, interactive television, and commerce on the Internet are all offered to provide a range of payment and transaction services in the global financial marketplace.

EDS' products and services have been enhanced by recent strategic alliances and acquisitions, including the following:

- Lakewood--This mortgage processing software company expands EDS' offerings to the mortgage industry. Its primary product is an open system, client/server-based software package that runs on a variety of platforms and handles all aspects of the mortgage lending process.
- FCI--This management and technology consulting organization focuses on providing professional services to the securities industry. Its industry expertise focuses on the information systems and operations departments of securities and brokerage

industry. Its industry expertise focuses on the information systems and operations departments of securities and brokerage firms.

- **Newtrend**--EDS acquired this organization's outsourcing contracts, software products, and computer facilities to increase EDS' service offerings to the financial services marketplace. The addition also brings 500 banks, savings institutions, and credit unions into the EDS customer base.
- **Amperand**--This organization adds branch automation software to EDS' financial products and services. The primary product is an open systems-based application that can be used by a variety of financial institutions.
- **Leinsa**--Based in Spain, this organization was an IT subsidiary of Banco Espanol de Credito. This acquisition makes EDS one of two leading IT services companies in Spain's financial sector.
- **Databank**--As one of the largest IT companies in New Zealand, Databank has significantly increased EDS' presence in the Asia/Pacific financial services marketplace. The company runs the settlement system for New Zealand's major trading banks and provides software development and support, as well as disaster recovery, facilities management, and network planning services.
- **Inter-Bank On-Line Systems (IBOS)**--EDS increases its cross-border funds transfer and currency exchange capabilities through this equity partnership. IBOS is an electronic system developed to provide global, high-speed, efficient cross-border banking services. Currently, four banking companies with more than 2,600 locations in France, Portugal, Spain, and the U.K. are linked through IBOS.
- **TransAlliance**--During 1995, EDS and The Exchange System formed TransAlliance, a joint venture company to provide ATM, point-of-sale, and interbank transaction processing services in the western U.S. and western Canada.
- **CheckFree Corporation**--During 1995, EDS and CheckFree signed an agreement to jointly market a range of on-line customer and business-to-business banking services, including bill payment, bill presentation, and electronic data interchange through PCs, touchtone telephones, and screen phones.

Recent contract awards from financial customers include the following:

- A seven-year contract for item processing services with Republic Services Corp. EDS will provide check processing services from a new processing center in Pavonia (NJ), as well as from existing centers in California and Florida.
- Providing mortgage loan origination and secondary marketing services to American Home Funding of Richmond (VA). EDS will design local- and wide-area networks connecting more than 40 branches and two central sites and will customize and install its Lakewood System loan origination and secondary marketing product.
- A ten-year contract with Constitution State Corporate Credit Union to develop a client/server-based customer information system and provide check processing, ATM processing, and automated clearinghouse support
- A seven-year agreement with Home Savings of America to support the institution's consumer lending operation
- A ten-year agreement with First American Real Estate Information Services to provide IT and consulting services

EDS' global capabilities are reflected by its most recent international contracts, which include:

- A three-year merchant processing agreement with VisaNet, a Brazilian company formed by a consortium of Brazilian banks and Visa International
- An eight-year agreement with La Caixa, Europe's largest savings and loan, headquartered in Barcelona. EDS will provide full outsourcing services to 21 subsidiaries of La Caixa (including banks, insurance companies, and finance companies) and will manage its communications network.
- A systems integration contract with Credit Agricole of France to install and operate a software package for employee savings plans
- A four-year contract with Banco Rio de la Plata of Argentina to implement an automation system for the bank's 174 branches
- Providing systems integration, systems development, and management consulting services for Den Norske Bank, Norway's largest bank

Retail

The Retail Industry Division, part of the Commercial Services SBU, provides business and information services to more than 50 customers worldwide in general merchandise, food, apparel and accessory, building materials and garden supplies, auto and home supply, furniture and home furnishing stores, eating and drinking establishments, and other retail specialties.

Contract examples include the following:

- Providing logistics management services to Computer City, the computer superstore retail division of Tandy
- A five-year facilities management agreement with Picard Surgeles, a French retail chain of more than 250 convenience stores
- A ten-year CoSourcing agreement with Kooperativa Forbundet (KP), one of Sweden's largest retail conglomerates
- A seven-year agreement with Nustep Shoes of Japan to install a new client/server-based retail system to connect Nustep stores
- A ten-year agreement with Oy Hartwall ab, a beverage provider in Finland, to provide computer operations, maintenance, system development, and PC local-area network management

Health Care

Health Care

EDS provides a range of services to health care organizations, managed-care groups, and medical suppliers. EDS' Health Care Industry Group (HCIG) touches more than 99 million lives and serves more than 100 customers, including 16 National Account Service Company (NASCO) Control Plans. HCIG offers the full range of EDS services, including consulting, systems development, systems management, systems integration, and process management.

Recent contract awards include the following:

- A five-year systems integration and information services agreement with Columbia Provider Services (a subsidiary of Columbia Healthcare/HCA) to operate its application information systems, manage vendor relationships, and provide integration capabilities
- The development and operation of a community outreach program that provides education and manages enrollment processes to help Delaware transition Medicaid clients from fee-for-service to managed care programs
- A six-year agreement with Blue Shield of California, an EDS customer for more than 26 years. EDS and Blue Shield are jointly defining new health maintenance organization (HMO) system capabilities and priorities for development.
- A multiyear systems management and integration agreement with PhyCor to move its medical clinics to an automated environment using EDS' computer-based patient-record technology
- A five-year process and systems management agreement with TennCare, Tennessee's Medicaid managed-care initiative
- A multiyear extension with Mississippi Medicaid to help the state Medicaid program move from a fee-for-service orientation to managed care

Other major health care clients include the Texas Department of Health and Human Services' STAR Health Plan, MediCal, Blue Cross and Blue Shield of Massachusetts (BCBSMA), Blue Cross and Blue Shield of Iowa/South Dakota, the U.K.'s National Health Service (NHS) Trust South & West Region, and the Taiwan National Health Program.

Communications

This unit serves the telecommunications, wireless communications, infotainment, Internet and new media, and video lottery technology industries.

In addition to its professional service offerings, EDS also offers expertise to the communications industry in the following processes:

- Corporate management
- Business support systems, including directory/publishing, billing and records, customer assistance, and marketing and sales
- Operations support systems, including network operations, service provisioning, and network engineering
- Advanced intelligent networks

EDS' strategy in the communications industry is to provide end-to-end capabilities; provide the industry with thought leadership; lead and support convergence; and address customer needs on a local and global basis.

EDS has provided service to the telecommunications industry for more than 20 years.

- Its experience includes serving long-distance (interexchange) carriers of all sizes; local exchange carriers (LECs), including all of the regional Bell operating companies; independent telephone companies in Canada and the U.S.; and an increasing number of Postal Telephone and Telegraph companies worldwide.
- EDS supplies services such as consulting, systems management, local exchange company outclearing, operator service, and interexchange company billing systems.

In the wireless industry, EDS offers a range of services that cross the carrier's value chain, from service creation through customer retention. EDS' integrated suite of services helps carriers optimize and manage their enterprise. These services include service provisioning systems, operator services, database marketing services, telemarketing services, Internet services, inventory control systems, billing services, clearinghouse services, remittance processing services, customer service outsourcing, output management services, and consulting services.

EDS provides services to many segments of the entertainment/broadcast industry, including content providers; advertising; amusement and theme parks; broadcast radio and television; games and arcades; motion picture studio production, distribution, and exhibition; music; events management (World Cup 1994, Olympics 1992); sports; ticketing systems; theaters; and exhibitors. EDS' support for these transaction-intensive industry segments ranges from providing more traditional information technology services, such as systems development, systems management, and systems integration, to creating customized solutions tailored to a customer's particular need.

EDS assists publishers in the areas of object management, intellectual property rights management, interactive multimedia, demand printing services, databases (fulfillment and marketing), advertising sales automation, and customer business performance improvement.

improvement.

In the area of interactive multimedia, EDS focuses on:

- Providing information technology services to full-service network operations
- Developing software that enables information and content to be created, managed, and distributed more effectively
- Developing interactive service offerings
- Using multimedia technologies to enhance business applications

Through its subsidiary--Premisys--EDS provides security alarm monitoring services directly to the consumer as well as to alarm protection companies. EDS also serves the security industry with information technology and industry-related process management services.

Recent communications industry-related project examples include the following:

- A ten-year contract with Deutsche Telecom MobilNet GmbH of Germany (DeTeMobil) to manage all data clearing activities for DeTeMobil's mobile telephone roaming partners worldwide (more than 50 mobile communications operators in 33 countries)
- An eight-year contract with the Swiss subsidiary of Alcatel to provide client/server network and data center management, systems development, back-up, and recovery management and help-desk support
- An approximately eight-and-one-half-year contract with fONOROLA, a long-distance telecommunications reseller based in Montreal. EDS will provide customized software (ISPlus billing system), conversion, implementation and change management support, management and operation of a data center, customer support, and system maintenance staff.
- A seven-year extension of EDS' Force Management System with Southwestern Bell Telephone. The system manages operator services personnel.
- A one-year renewal of a systems management agreement with broadcaster TDF, a subsidiary of France Telecom and COGECOM, to manage accounting, capital investments, purchasing, and sales systems
- A ten-year agreement valued at more than \$550 million to implement and manage EDS' client/server cellular management system--EMPOWER--for Ameritech Cellular's 1.3 million cellular and paging customers in Milwaukee, Chicago, St. Louis, Detroit and Ohio

Travel and Transportation

The EDS Travel and Transportation Group includes three strategic business units:

- Air Transport Services (airlines, air cargo, and airports)
- Global Travel Services (corporate and leisure travel agencies and providers, including vehicle rental companies, cruise lines, hotels and other hospitality organizations)
- Freight Services (road, rail, and sea cargo, as well as third-party logistics)

Air Transport Services provides complete IT services to airlines and airports and offers strategies designed especially for each major operation within an airline, including corporate direction, sales and marketing, passenger services, flight operations, finance, maintenance and engineering, and human resources.

Global Travel Services leverages EDS' expertise with enterprise-wide IT solutions as well as specific services in computer reservation systems.

Freight Services offers IT applications and a third-party logistics service to help create a global logistics pipeline.

Recent contract examples include the following:

- A ten-year outsourcing contract with Continental Airlines to provide IT services for electronic ticketing, flight operations support, cargo revenue accounting, crew management, and passenger revenue accounting
- A ten-year outsourcing contract with the Nederlandse Spoorwegen (Dutch Railways Company) focusing on individual passenger services and cargo services
- A ten-year outsourcing contract with Cunard Line Limited to reengineer Cunard's shipboard systems and reservations, financial, and customer information systems, and to manage and upgrade telecommunications in Cunard's offices worldwide
- A two-year systems integration project with Chek Lap Kok Airport in Hong Kong to supply a fully integrated flight information and stand-management system for Hong Kong's newest airport
- A two-year business systems implementation contract with the Airport Authority of Hong Kong to design and implement application software for four separate divisions of the Airport Authority for Chek Lap Kok airport, including operations, financial, commercial business, and human resources
- A ten-year outsourcing agreement with Aeroméxico Airlines to manage and operate all of Aeroméxico's information management systems, including payroll, crew management, and frequent-flyer programs. EDS will also help the airline

management systems, including payroll, crew management, and frequent-flyer programs. EDS will also help the airline implement Azteca 2000, a new reservation system.

- A ten-year systems management agreement with RailTex Service Company Inc. to provide systems management and development to support business operations

Other major travel and transportation clients include BTI Americas Inc., Lufthansa Systems, Southwest Airlines, AMADEUS/System One, Schneider National, Sea-Land Service Inc., and Virgin Atlantic Airlines.

Energy/Utilities

In the oil and gas industry, EDS focuses both on the individual segments of the business-exploration and production, refining, petrochemicals, and petroleum marketing-and on helping companies transform their entire enterprise to meet changing industry demands. EDS helps oil and gas companies address complex governmental and environmental regulations and respond to increasing global competition. EDS services a broad range of energy companies, from the world's major integrated oil and gas companies to the mid-sized producers and marketers.

EDS also works with chemical companies worldwide to help them compete in the European, U.S., and Asia/Pacific markets.

EDS customers represent 90% of the U.S.' electricity generation capacity. EDS provides services to every major utility type, including electric, gas, and water, and to every area of operation, including financial, customer enterprise, and material support and service.

Major contract examples include the following:

- A five-year systems management contract with BP France to maintain and ensure the evolution of BP France's information systems
- A four-year outsourcing and business planning reengineering contract with CEZ, the Czech Republic's largest electric utility
- A seven-year systems management contract with Huntsman Chemical Company to assume full operational responsibility for Huntsman's distributed computing environment
- A ten-year master services agreement with Minimerados Mexicanos to provide client/server technology to support expansion efforts at the corporate and store levels
- A ten-year master services agreement with Mohawk Oil Co. Ltd. to provide industry thought leadership, business and technology consulting services, and migrate Mohawk's computing infrastructure to a client/server environment
- A five-year distributed systems management contract with Pennsylvania Power & Light to support migration to a client/server computing environment
- A three-year systems integration and development contract with Polish Power Grid to redesign its entire electric utility system
- A six-year systems management agreement with RAPID Inc. to design, develop, and manage the AgPower nationwide network
- A five-year supply chain process management contract with Boston Edison in conjunction with Bechtel to provide requirements definition, sourcing and procurement, materials and inventory management, distribution logistics, and payment coordination for the Pilgrim Power Station facility
- A five-year information systems contract with TOTAL Petroleum Inc. to manage the price book management function, provide item-level merchandise consulting, and develop and manage integrated systems to upgrade customer service

Manufacturing

EDS provides a range of professional and systems management services to manufacturing and distribution companies worldwide. EDS' expertise encompasses a range of discrete and process manufacturing markets, including aerospace and defense, automotive vehicles and components, high-technology products, food and beverage, textiles and apparel, and diversified products.

For the manufacturing industry, EDS is established as a Business Process Partner, rather than an IT services vendor. EDS collaborates with manufacturers to improve business processes, reduce costs, and increase market share. Typical EDS value propositions in manufacturing include compression of the order-to-cash cycle, increased speed to market of new products, improved product quality, and reduced product cost.

In May 1996, EDS announced SupplySourceSM, a new service that focuses on the outsourcing of a manufacturer's procurement function. EDS assumes responsibility for the organization's maintenance, repair, and operations (MRO) procurement functions. The service makes use of EDS' Integrated Supplier Network, an alliance of top-tier supplier companies and implements of best-practice processes and change management as related to the procurement process.

Major contract examples include the following:

- A ten-year outsourcing agreement with Federal Mogul, a worldwide vehicle parts manufacturer, to provide SupplySource

A ten-year outsourcing agreement with Federal Mogul, a worldwide vehicle parts manufacturer, to provide SupplySource services for Federal Mogul's domestic MRO procurement functions

- A ten-year IT outsourcing agreement with Fujitsu's Gresham Manufacturing Division (Gresham, OR), providing fabrication application systems and infrastructure support services, including data center operations, network management, and desktop services
- A ten-year, client/server systems management agreement with Storage Technology Corp. to provide desktop computing services
- A three-year outsourcing agreement with Microsoft to support Premier Watch, Microsoft's remote monitoring service for premier customers with Windows NT servers
- A seven-year systems management agreement with FMC's Machinery and Equipment Group to schedule technology refresh, maintenance, and enhancements of Integrated Product Development and MANMAN applications, as well as operation, support, and update UNIX and Novell operating environments
- A \$3.2 billion agreement to assume responsibility for most of Xerox Corporation's global IT needs, including data center operations, worldwide voice and data telecommunications, desktop systems support, and designated business support applications. EDS has awarded a five-year, \$500+ million contract to Xerox whereby Xerox will manage approximately 100 of EDS' high-volume, networked printer centers worldwide.

International manufacturing contracts include the following:

- A ten-year agreement with Rolls-Royce Aerospace Group valued at more than \$900 million, whereby EDS will take full responsibility for Rolls-Royce Aerospace Group's information technology infrastructure, network, systems, and applications
- An outsourcing contract with AVL, an Austrian automobile engine developer, to manage AVL's client/server infrastructure, including SAP R/3, introduce international service levels, and prepare for a worldwide rollout to AVL's 48 global subsidiaries
- A systems integration agreement to establish and install local- and wide-area network connectivity for Xerox China Ltd. and ultimately integrate its 21 locations
- A seven-year systems management contract with Christoffle, a French manufacturer of luxury goods, to manage Christoffle's information technology systems, including operations, maintenance, and development of sales management applications
- A ten-year agreement with AGIE S.A. Losone, a major Swiss producer of machines for the tool industry, to assume responsibility for AGIE's entire IT infrastructure and move AGIE's legacy systems to a client/server environment. EDS will also provide help desk services, mobile presentation sales tools, and personal productivity tools.
- Providing systems development and implementation services, including client/server applications to automate warehouses and picking systems for Molinos Rio de la Plata, Argentina's leading food industry company

Other significant manufacturing customers include the following:

- Europe--Agroman (Spain), EKO Stahl (Germany), General Sucriere (France), Hartwall (Finland), Klockner Humbolt Deutz (Germany and the Netherlands), Saab Automobile, Siemens Automotive (France), and VAW Aluminum AG (Germany)
- Americas--Bell Packaging, Bethlehem Steel, Birmingham Steel Corp., CIADDA (Argentina), Del Monte Foods, Detroit Diesel Corporation, Frito-Lay, General Electric Do Brazil Ltda, Hobart Brothers, Levi Strauss, London Fog, Midland Steel, Moore Corporation Limited, Northrop Grumman Corporation, Philips Semiconductors, and Textron Corporation
- Asia/Pacific--Kraft General Foods International (Taiwan), Nippon Steel (Japan), Sahavariya Steel (Thailand), and Uncle Toby's Foods (Australia)

General Motors

EDS' GM revenue comes from designing, installing, and operating GM information systems and supporting the automaker's large private digital communications network.

- Under a five-year agreement with GM Service Technology Group, EDS will provide integration, sales, marketing, and distribution services for the Techline PC Service Information product to more than 8,000 GM dealers in North America.
- EDS is producing Web sites for each of GM's car and truck divisions, GMAC, and Service Parts Operations on the Internet.
- EDS is providing GM tax staff with international trade management services in support of the GM Customs Administration Group.
- Under a five-year agreement with the Buick Motor Division, EDS is responsible for answering and responding to customer inquiries and concerns about Buick products while capturing the customer information in a database for future relationship-marketing initiatives.
- EDS also was awarded a contract to develop the next-generation Manufacturing Information System, which will be deployed at all Delco Electronics production sites.

Data Centers

EDS currently operates 14 Information Processing Centers (IPCs) worldwide. There are four IPCs in Plano (TX). Other IPC locations include Sacramento (CA), Camp Hill (PA), Auburn Hills (MI), Dayton (OH), Herndon (VA), Oshawa (Canada), Paris (France), Stockley Park (England), Zaragoza (Spain), Russelsheim (Germany) and Spijkensse (the Netherlands).

(France), Stockley Park (England), Zaragoza (Spain), Russelsheim (Germany) and Spijkenisse (the Netherlands).

EDS' Information Management Center (IMC) in Plano is a network command site responsible for managing EDS*NET, EDS' private digital network that manages the telecommunications needs of EDS' IPCs. Through EDS*NET, more than 1.1 billion transactions are processed each month.

Marketing and Sales

EDS markets its services through a direct sales force that is aligned by vertical industry. In addition, there is a separate SSU sales force to sell horizontal products/services through and in conjunction with the vertical sales forces.

Alliances

EDS has various ongoing relationships with more than 7,000 vendors worldwide, including the following:

- In May 1996, EDS and Computer City, the computer superstore retail division of Tandy Corporation, formed a strategic alliance designed to provide immediate pricing and availability estimates to corporate customers and mutually leverage Computer City and EDS customer relationships.
- In February 1996, EDS and PointCast Incorporated announced a partnership to develop and market products and services for the PointCast Network (PCN), a free service that broadcasts personalized news and information directly to a viewer's computer screen. EDS will provide technical and data center support for PCN, including disaster recovery.
- In January 1996, EDS and The ASCII Group, Inc. signed a letter of intent to team to create an on-line Internet marketplace to distribute computer-related products and services.
- In January 1996, EDS and CheckFree Corporation signed an agreement to jointly market on-line consumer and business-to-business banking services. EDS' Virtual Branch remote banking services will be integrated with CheckFree's electronic payment system to offer bill payment, bill presentment, and EDI, accessible through a PC, touchtone telephone, or screen phone.
- In August 1995, EDS and Silicon Graphics formed a strategic alliance whereby EDS will use Silicon Graphics' WebFORCE hardware and software applications to support its customers' multimedia presence on the World Wide Web.

Some of EDS' other joint ventures and other agreements include:

- Joint Ventures--Beijing International Information Processing, China Management Systems Corporation, EDI Africa Limited, GM Mobile Communications Systems, Hitachi Data Systems Holding Corporation, Interactive Transaction Partners, Inter-bank On-Line Systems Limited, EDS Israel, Ltd., LG-EDS, Inc., Nippon EDS Company Limited, Pyns Ltd., SV-EDS Technology Services, Ltd., System One Information Management, L.L.C., Transalliance, L.P., UMW-EDS Technologies Sdn. Bhd., UPE Systems Services Sdn. Bhd., and Worldlink Technologies Pty. Ltd.
- Agreements--Dun & Bradstreet HealthCare Information, Netscape, Hotel Information Systems Inc., Computer Associates, American Express, and Silicon Graphics

EDS has become a sponsoring member of CommerceNet, a consortium of government agencies, educational institutions, and leading companies working in concert to facilitate business-to-business commerce on the Internet.

Competitors

Major competitors of EDS by product/service area include the following:

- Insurance claims processing--Computer Sciences Corporation (CSC), Policy Management Systems, and Unisys
- Government systems--CSC, Lockheed Martin, PRC (Litton), and Boeing Information Services
- Banking and finance--Andersen Consulting, BISYS, Fiserv, and IBM ISSC
- Manufacturing--IBM ISSC, Computer Sciences Corporation, and Andersen Consulting
- Systems integration--Andersen Consulting, Unisys, and IBM
- Systems operations--Andersen Consulting, Computer Sciences Corporation, IBM ISSC, and CAP GEMINI
- Systems development/consulting--Andersen Consulting

Assessment

EDS' major strengths include:

- Its customer focus
- Its ability to manage complexity

- Its ability to manage complexity
- Consistent global infrastructure
- Breadth and depth in its targeted industries
- Project management skills and methodologies

Challenges over the coming year include:

- Managing rapid global growth
- Increasing market awareness of EDS' depth and breadth

EDS is also emphasizing its ability, as a newly independent company, to be more responsive to rapidly changing market dynamics, to form new alliances, and launch new ventures. Any acquisitions in the near future are likely to be small, niche, or foreign companies. An alliance with a larger communications or computer hardware company is a possibility, but it is unlikely that EDS will tie itself too closely to any large company so soon after gaining its independence.

With its reorganized leadership in the form of two executive councils—one concerned with corporate strategy and the other with operating strategies—EDS intends to keep its strategic direction on course. EDS' challenges will be to continue to manage rapid global growth while increasing market awareness of the breadth and depth of its expertise.

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Enator AB

New
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UPDATED:
05/01/1997

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Summary Info

President/CEO:	+ke Plyhm
Status:	Public
Employees:	4,887 (12/1996)
Revenue:	\$ 655.0 mil
Revenue (\$k mil):	4,352.0
Year End	Dec-1996

Key Points

- Major Swedish software and services provider
- Strong focus on telecommunications through prior mergers
- Enator's largest customers are the Swedish public sector and Ericsson
- Spun off from Celsius and floated on the Stockholm Stock Exchange in June 1996
- Expansion plans with a vision to become a leading IT provider in the Nordic countries.

Company Description

Enator is a large IT company, active in the Nordic countries and Germany. The company offers a wide range of IT products and services, including systems solutions; application packages and bespoke development; IT infrastructure; support and services.

Enator was listed on the Stockholm Stock Exchange in June 1996, thereby becoming independent from its previous parent Celsius, one of Sweden's largest advanced technology companies with a large market in the defence industry.

The formation of Enator started in 1991 when the Celsius Group acquired FFV AB. This acquisition included the Telub company and brought expertise in telecommunications and military information technology to the group.

In 1992, Telub bought Datcom, a data- and telecommunications company which provided Celsius with a large customer base in both the private and public sectors and also added a nation-wide network of offices.

In 1994, Celsius acquired "old" Enator, an IT consulting company. This acquisition gave the company a platform for expanding its marketing efforts in the other Nordic countries and Germany. It further increased the company's presence in the private sector.

At this point, Telub and Enator were two separate operating arms in the Celsius group. Dialog, a company active in the local authorities and health care markets, was also added to the equation in 1994 and formed Celsius' third information technology arm. These three arms were co-ordinated within Celsius Information Systems.

The last piece of the Enator AB was Adedata which was acquired in the beginning of 1996, provided a customer base for financial systems within the private sector. Following this acquisition, Celsius Information Systems changed its name to Enator and the preparations for the June flotation were on the way.

Following the flotation, the Swedish government is the largest share holder with a 25% stake in Enator.

Operations and Structure

During the past two years, Enator has gone through a re-organisation process, that has streamlined operations to better fit an independent company.

Enator is organised into four business areas:

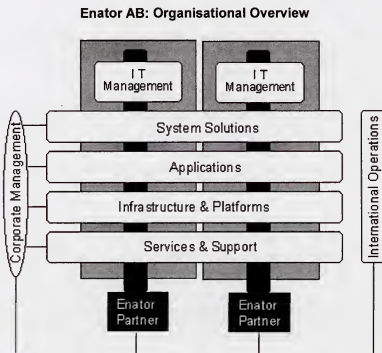
- System Solutions
- Applications
- Infrastructure and Platforms
- Services and Support

Previously, the company had a fifth business area, IT Management, which has now been incorporated into the remaining areas. Enator's international operations parallel to these business areas, although they for reporting purposes were included in Systems Solutions in 1996.

Underlying all business areas are Enator Partner, which holds the company's activities for developing long-term partnerships.

Exhibit 1 shows Enator's new organisational structure.

Exhibit 1



Source: Enator AB

The operating organisation further consists of:

- Eighty business units, each with a discrete focus area and P&L responsibility
- Eighteen operating sectors (comprising the business units) with responsibility for operating management, balance sheets and income statements.

These units and sectors form the four business areas.

Exhibit 2 provides an overview of the distribution of Enator's employees by business area.

Exhibit 2

**Enator: Employees by Business Area,
Year End 1996**

Business Area	Number of Employees
System Solutions <i>incl. International Operations</i>	2,247 416
Applications	858
Infrastructure & Platforms	1,275
Services & Support	468
Employees at Year End	4,887

Source: Enator AB

Company Strategy

Enator's vision is to become the leading provider of IT solutions in the Nordic Region. The management will through 1997 bring the company towards this goal through a focus on the following key areas:

- Growth in existing markets
- Focus on core competencies
- Continued improvement of productivity.

Enator's goal is to increase its revenues by at least the market growth. For 1997 and the next few years, this means that Enator's management is a targeted a growth rate for the company of at least 8-10%. Acquisitions continue to remain part of the growth strategy.

During 1997, Enator will continue to focus the efforts of the business areas on the core competencies. The company considers its position in telecommunications to be one of its major competitive advantages and will further develop this area to sharpen its profile in the market.

Enator believes its operations have a unique spirit of small company within a large company framework. While the small company set-up supports speed of action, the large company framework provides necessary resources, economy of scale and stability.

The small company spirit is further supportive of improving work methods and efficiency measures.

Financial Information

For 1996, Enator reported revenues of SEK 4,352 million (\$655 million). This represented an increase of 7% over the previous year. Net income for 1996 was SEK 174 million (\$ 26 million) compared with a loss of SEK 242 million a year earlier. Excluding the Group contribution to Celsius in 1995, net income for this year was SEK 171 million.

Enator has a stated objective of producing an operating margin, excluding amortisation of goodwill, of 6-7%. For 1996, this margin was slightly down at 5.1% compared with 5.4% in 1995.

During 1996, charges were taken for restructuring the company, including divestment of certain unprofitable operations.

The Systems & Solutions and Applications business areas each grew revenues by 7% from 1995 to 1996, while revenues from Services & Support increased by only 3%. Infrastructure & Platforms increased revenues by 9% in the period.

Exhibit 3 provides a five-year overview of Enator's financial results. Results for 1992 through 1994 are pro forma income statements. The issue in 1996 provided approximately SEK 500 million after issue costs.

Exhibit 3

**Five-Year Financial Summary,
1992 to 1996, (SEK million) (FYE 31-12)**

Year	1992*	1993*	1994*	1995	1996
Revenue	2,809	3,656	3,731	4,067	4,352
Annual Growth	-9.6%	30.2%	2.1%	9%	7%
Net Income before amortisation of goodwill (NBG)	103	101	-132	222	221
Net Income	N/A	N/A	N/A	-242	174
NBG as % of Revenue	3.7%	2.8%	N/A	5.5%	5.1%
Employees (average)	4,083	4,979	4,904	4,690	5,004
Revenue per employee	0.688	0.734	0.761	0.867	0.870

* Pro forma statements

Source: Enator AB

Market Analysis

Enator generates around 90% of its revenues in Sweden. Exhibit 4 shows INPUT's estimates for Enator's revenues by country.

Exhibit 4

**Revenues by Country,
1996 (\$ Millions)**

Country	Revenues in \$ Millions	Share
Sweden	600	92%
Norway	30	5%
Finland	12	2%
Germany	8	1%
Denmark	5	<1%
Total Revenues	655	100%

Source: INPUT estimates
Percentages are rounded

Exhibit 5 shows INPUT's estimates of Enator's software and services revenues by delivery mode. INPUT estimates that around 12% of revenues are captive.

Exhibit 5

European Software and Services Revenues by Delivery Mode, 1996 (\$ Millions)

Delivery Mode	Revenues in \$ Millions	Share
Application Software	155	40%
Professional Services	80	21%
Outsourcing	75	20%
Systems Integration	40	10%
Customer Services	35	9%
Total Software & Services	385	100%

Source: INPUT estimates
Percentages are rounded

Exhibit 6 shows Enator's software and services revenues by vertical market. In the public sector, the company is focused on defence, local authorities, central government and health care. In the private sector, Enator has no specific target segments. The private sector represents the company's strongest growth segment. During 1996, the largest growth areas for these vertical markets related to data communication and IT consulting.

Exhibit 6

European Software and Services Revenues by Vertical Market

Vertical Market	Revenues in \$ Millions	Share
Public Sector	215	56%
Private Sector	170	44%
Total Software & Services	385	100%

Source: INPUT estimates

Key Product and Services

The following provides an overview of Enator's key offerings by business area.

Systems Solutions

The Systems Solutions business area is involved in large-scale IT projects, involving:

- development and implementation of bespoke systems
- major modifications of standard applications
- integration of standard and bespoke applications
- development of embedded systems
- management, maintenance and development of existing customer systems
- project management and design resources for development projects
- documentation and training of users.

Enator regards computer-supported telephony, information security and the application of Internet/Intranet technologies to be important growth areas for this business.

Applications

The Applications business area comprises general and industry-specific proprietary software products. The offerings include:

- Cross-industry applications software for financial, payroll and personnel management systems
- Industry-specific applications for targeted vertical markets
- Standard software programs designed for individual users.

Most of Enator's Applications customers have multiple-year contracts, often at fixed prices.

Infrastructure and Platforms

Enator's products in the Infrastructure and Platforms business area are focused on communications solutions for data and telephony. The products and services offerings are:

- Data and telecommunications equipment
- Communications networks
- Computers and peripheral equipment
- Databases
- Development tools
- Consulting services
- Installations

In Sweden, Enator also has the status of telecommunications operator, enabling it to provide fixed-wire connections and telephony services.

Services and Support

The Services and Support business area is concerned with on-going operations and support functions. The offerings include:

- Operation of local and central IT platforms
- Network operation and communications services
- User support, both on-site and via networks
- Help desk services

- Technical support, service and maintenance
- Output operations and post-processing

Enator has one of the largest operations centres in Sweden, through which it offers customers outsourcing, support and services in a range of different operating environments. Enator considers outsourcing and packages support services to be the major growth areas for this segment.

The IT Management area, which is now incorporated into the four business areas above comprises services such as:

- Operations analyses and change strategies
- IT strategy consulting
- Development of management skills in IT.

Acquisitions and Alliances

Recent acquisitions and investments include:

- Joint venture with Kraftdata, Sweden, to develop systems for energy, water and sewage, and refuse collection
- Joint venture company, PEBS, with the Swedish Post Office focusing on Electronic Trading in the public sector. The public sector in Sweden has been targeted to deliver and handle 95% of its products and services electronically by 1998
- Acquisition of N-Data, Sweden in November 1996. The main reason for this small acquisition was to extend Enator's presence in western Sweden
- Acquisition of Adedata AB in January 1996. This acquisition added approximately 200 employees to Enator and increased the company's private sector customer base.

Enator has only during 1996 increased its focus on partners and alliances through its Enator Partner initiative. The company is currently looking for an alliance with a telecoms operator and has entered into negotiations with potential partners.

Enator has a long standing relationship with Oracle around system development and tools. In February 1997, this alliance was extended to include Oracle Applications.

Recent Projects and Major Clients

Exhibit 7 shows a selection of Enator's major clients.

Recent projects include:

- Best Western Hotels – Enator will carry out total IT installation of about 25 hotels in Sweden
- SAAB Aircraft – development of system to find and report faults on aeroplanes
- Ericsson Radio Communications – Enator has been selected as subcontractor for building a GSM mobile phone system in Poland.

Exhibit 7

A Selection of Enator's Major Clients

Sector	Company
Defence	Swedish Defence Forces

Defence	Swedish Air Force
Public Sector	National Civil Defence Board, Sweden City of Gothenburg Approx. 60% of Swedish local authorities National Labour Market Board, Sweden
Manufacturing	Volvo Scania
Telecommunications	Ericsson Unisource
Health Care	Karolinska Hospital, Sweden
Transport	Adtranz Signal AB, Sweden Greater Stockholm Public Transport Company
Other	Best Western Hotels, Sweden McCann Erickson Norwegian Sports Association Statoil Reuters Svenska AB

Source: Enator AB

INPUT Assessment

Enator holds a very strong position in its domestic market. However, the company has not moved much closer to its vision of becoming the leader in IT solutions in the Nordic countries.

Over the past year, Enator has hardly increased revenues from its international business. Admittedly, the flotation and independence from Celsius were top priorities in 1996. The company has also prioritised reorganisation in the past year. However, there may still be more restructuring in the cards. The company's organisation into eighty business seems very fragmented and sends a diffuse message to the market.

Enator will face some challenges in expanding in the Nordic region. The company will not have the benefit of playing in its home market but will increasingly be going head to head with the major global and European players. Strong alliances and partnerships could support the expansion strategy.

Undoubtedly, one of Enator's major competitive strengths is its expertise in telecommunications and the convergence with IT. If the company uses this advantage in its marketing and partnering strategy, Enator could carve itself a nice piece of the market.

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Enterprise Networks Group



UPDATED:
04/30/1998

Headquarters

1 Mount Road
Hanworth, Middlesex TW13 6AR
United Kingdom

Phone: 0181 744 8000 **Fax:** 0181 755 2828

Company Web Site:
<http://www.enterprise-networks.co.uk>

Summary Info

Status:
Employees: N/A
Revenue: N/A

Capability Profiles

CAPABILITY	REGION
Network Management and Support	U.K.

No main company profile is available for this company.
Click on one of the Capability Profile links
to view this company's capability profile in the market listed.
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ENTEX Information Services

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UPDATED:
09/01/1996

Headquarters

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U.S.

Phone:
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Fax:
(914) 935-3650

Company Web Site:
<http://www.entex-is.com>

Summary Info

Chairman:	Dort Cameron
Vice Chairman:	John McKenna, Jr.
Status:	Private
Employees:	5,250 (06/1996)
Revenue:	\$ 2,100.0 mil
Year End	Jun-1996

Key Points

- ENTEX Information Services (ENTEX) is a PC systems integrator. The company provides PC systems and network integration, asset management, outsourcing, and professional services.
- In July 1996, ENTEX acquired FCP Technologies Inc., an enterprise systems integrator.
- In July 1996, Microsoft invested an undisclosed amount in ENTEX, taking an ownership position. The size of the investment was not disclosed, but it is believed to be less than a 5% interest.
- In June 1996, ENTEX announced agreements with Microsoft and Compaq to provide a higher level of network solutions to Fortune 1000 companies.
- In May 1996, the company announced its partnership with CONNECT, Inc. to develop an Internet acquisition system.
- In April 1996, ENTEX announced the availability of Order Access, the company's Lotus Notes-based electronic order management system.
- In February 1996, ENTEX's International Alliance added Transmarco/Singapore and Migesa/Mexico as partners.
- In December 1995, Otsuka Shokai, one of Japan's largest systems integrators joined the International Alliance.
- In September 1995, the company acquired Random Access, Inc., a supplier of information technology solutions in the Western U.S.
- In January 1995, ENTEX acquired Detroit (MI)-based integrator, the L.E.A.D. Group.

Company Description

ENTEX Information Services provides desktop, mobile, and network computing solutions for large organizations. The company's services encompass four primary areas of expertise: network integration, asset management, acquisition services, and end user support. ENTEX is also a distributor of desktop hardware and software in the U.S.

The company was formed in August 1993 with the management and employee buyout of the U.S. business of JWP's Information Systems Group.

ENTEX uses a technology lifestyle approach that comprises all phases of the acquisition, installation, and support of PCs, software, networks, and mobile computing devices.

Organization and Structure

Headquartered in Rye Brook (NY), ENTEX has 60 sales and service locations in major U.S. metropolitan areas. The company's National Integration Center is located in Erlanger (KY) and its National Service Center is in Mason (OH).

Sales and service facilities are located in Santa Clara, Foster City, Sacramento, Irvine, Los Angeles, and San Diego (CA); Redmond and Seattle (WA); Portland (OR); Denver (CO); Omaha (NE); Kansas City and Wichita (KS); Phoenix (AZ); Salt Lake City (UT); Chicago (IL); Cincinnati and; Detroit (MI); Ft. Wayne and Indianapolis (IN); Columbus and Cleveland (OH); Milwaukee (WI); Minneapolis (MN); St. Louis (MO); Atlanta (GA); Austin, Houston, and Dallas/Ft. Worth (TX); Charlotte (NC); Ft. Lauderdale and Orlando (FL); New Orleans and Shreveport (LA); Tulsa/Little Rock (OK); Washington (DC); Albany (NY); Boston (MA); Hartford and Norwalk (CT); New York and Rochester (NY); Edison (NJ); and Philadelphia and Pittsburgh (PA).

ENTEX achieves an international reach, providing global technology support through its International Alliance which covers more than 300 worldwide locations.

In April 1996, the company reorganized its product managers and buyers from an alignment by vendor to a new platform-oriented structure.

- This new approach is intended to provide greater value for the customers by focusing on the client rather than the vendor.
- The "technology experts" are now organized around CPUs--desktops, services, and laptops--and around peripherals and complementary products--printers, monitors, networks, modems, mass storage, and software.
- Each group now has its own product management team.

Key ENTEX's executives are summarized in the exhibit on the following page.

**Exhibit
ENTEX Key Executives**

Name	Title
John McKenna, Jr.	President and CEO
Bob Auray	Chief Operating Officer
David Chemerow	Chief Financial Officer
Phil Johnson	Sr. VP, Human Resources
Herbert Foster	VP, Communications
John Lyons	VP, Marketing
Lynne Burgess	VP and General Council

Company Strategy

ENTEX's mission states that "ENTEX is dedicated to improving our customers' competitiveness and profitability through the effective implementation and management of information technology. Our employee-owners are committed to sustaining the highest levels of quality and integrity in all relationships with our customers, suppliers, and communities."

Financials

ENTEX's fiscal 1996 revenue was \$2.1 billion, an increase of approximately 43% over revenue of nearly \$1.5 billion the previous year.

A three-year revenue summary is shown below.

**ENTEX Information Services
Three-Year Revenue Summary
(\$ Millions)**

Item	Fiscal Year		
	6/96	6/95	6/94
Revenue	\$2,100	\$1,470	\$1,200
<ul style="list-style-type: none"> • Percent change from previous year 	43%	22%	N/A

Acquisitions

In July 1996, ENTEX acquired FCP Technologies Inc. of Frederick (MD), an enterprise systems integrator.

- This acquisition broadens ENTEX's high-end network integration services and skills, as well as its product offering.
- FCP Technologies had revenue of \$100 million in 1995.

In September 1995, ENTEX acquired Denver (CO)-based Random Access, Inc., a provider of information technology solutions,

in a \$22 million cash transaction.

- The acquisition expanded ENTEX's presence in the Rocky Mountain area.
- The purchase also added the training services business as well as videoconferencing and imaging expertise.
- Random Access had annual revenue of \$240 million prior to the acquisition.

In January 1995, ENTEX acquired Detroit (MI)-based L.E.A.D. Group, a provider of integration services.

- This acquisition provided ENTEX with expertise in Lotus Notes and LAN integration.
- The L.E.A.D. Group had revenue of approximately \$25 million in fiscal 1995.

Employees

As of June 30, 1996, ENTEX Information Services had 5,250 employees segmented as follows:

Marketing and sales	900
Customer support and services	3,600
Research and development	100
Computer operations	150
General and administrative	500
	<u>5,250</u>

Employee growth in fiscal 1996 was approximately 49%, compared to 50% in fiscal 1995 and 13% in fiscal 1994, respectively.

Key Products and Services

Software

ENTEX is a distributor and authorized reseller of software for all the leading manufacturers including Microsoft, Novell, and IBM.

The company provides asset management services, based upon software from ASI of Canada, including:

- AssetPRO v3.0--A Window 3.x compatible enterprise management system that supports fault tolerant data transfers.
 - AssetPRO acts as a centralized data repository, collecting event data from network and system management, help desk, and PC surveying tools.
 - The system stores the calculated costs of each event in a relational database.
- AssetPRO DCM--A data collection module for AssetPRO that collects and sorts data into categories.
 - AssetPRO DCM identifies software components, Windows configuration files, system files, and hardware components.
 - The module is compatible with Windows 95, Windows 3.x, Windows NT, OS/2, Apple Macintosh, and PC-MS/DOS.
- AssetRADAR--A data acquisition package that works in conjunction with AssetPRO to track the time used by each application on a stand-alone or networked PC
 - With the collection of data, AssetRADAR provides license-usage patterns for determining Volume Purchase Agreement analysis.
 - Data can be converged into the AssetPRO database enabling analysis of usage trends.
- In April 1996, ENTEX announced the availability of Order Access, the company Lotus Notes-based electronic order management system.
 - Order Access manages the order requisition cycle with centralized order processing and automated order routing.
 - The system also provides resource requirements management and evaluation, order status and tracking, and electronic invoices.

Services

ENTEX services include configuration, on-site software installation/network integration, enterprise software audits, centralized

and on-site help desk support, and volume license management.

ENTEX's service model is based on the Technology Lifecycle, which begins with the initial design specification and acquisition of technology products and extends through the support and eventual replacement of the asset with the new technology solution.

Infrastructure Services (core support services) begin with the design and functional technology to be implemented.

- Acquisition Services--Offering various customized solutions to facilitate the acquisition process, including acquisition consulting services, on-site acquisition support, remote acquisition support, and Electronic Data Interchange services
 - Account Information Management System (AIMS)--A system for the management of PC acquisitions
 - AIMS provides summaries of purchasing patterns with historical reports on its client's acquisitions based on information imported from ENTEX's inventory and order management systems
 - Reports provided through AIMS include CPU or printer acquisition, product family acquisition, total dollars invested, serial number reports, shipping performance analysis, and transactional analysis.
- Integration Services--Focusing on installation and integration of technology into the existing enterprise environment
- Core Support Services--Including full service maintenance, warranty, repair, help desk, and moves/adds/changes, all offered under ENTEX's Dedicated Resource program.
 - SolutionLine is ENTEX's fee-based 800-number technical support service program providing two levels of support:
 - Basic Product Support provides telephone support for most industry standard shrink-wrapped applications including word processors, spreadsheets, presentation graphics, electronic mail, databases, and basic operating systems.
 - Advanced Product Support includes Basic Product Support as well as LAN and WAN functions, network operating systems, network utilities, bridges, routers, and getaways. Support is also provided for electronic mail administration, data communications, and PC-to-host communications.
 - SolutionLine provides seven days a week, 24-hour per day support for more than 125 software programs as well as proprietary software.
 - Time and Materials program offers on-site technical service and support on a per-incident basis or as an on-going service.
- Upgrade Services--Focusing on the redeployment or retirement of assets

Distributed Technology Services focus on the implementation and management of enabling technologies and their integration into the EUC infrastructure.

- Network Design--A consulting service for designing networks which providing the following deliverables:
 - Account profile
 - Pricing worksheet
 - Proposal
 - Design Interview guide
 - Requirements document
 - Design document
 - Acceptance document
 - Customer satisfaction survey
- Network/Systems Management--Providing network performance baseline audit of the network performance characteristics. This service can also be used for troubleshooting networks with ongoing or intermittent errors
- Network Performance Management
- Network Audit--Providing one-time or periodic assessment of all physical and logical components of the network. The audit includes the following documents:
 - Account profile
 - Pricing sheet
 - Proposal
 - Audit document
 - Acceptance document
 - Customer satisfaction survey
- Groupware Support Services--Offering open, standards-based technology and infrastructure support using a structured methodology consisting of four phases:
 - Groupware Analysis
 - Groupware Infrastructure Development
 - Groupware Deployment
 - Management and Support

Business Services represents a customized bundled offering of infrastructure and distributed technology services.

ENTEX's outsourcing services provides management of more than 2 million PCs in the workplace and has more than 1,800

employees working on-site daily at customer locations.

National Integration Center

ENTEX's ISO 9002 certified Integration Center, located in Erlanger (KY), is the company's distribution/configuration facility.

- The Integration Center houses all ENTEX inventory, supports custom hardware and software integrations, and provides light manufacturing.
- The Center operates on a paperless Warehouse Management System, and uses ENTEX's upgraded proprietary software loading system, System Builder, to improve download time and increase capacity and speed of data transmission.
- System Builder allows customers to specify particular software and network requirements and have them electronically downloaded to new systems.
- Order fulfillment procedures guarantee shipping of in-stock, non-configured equipment the same day if the order is recovered before 8 p.m. Configured systems are shipped within 48 hours of order receipt.
- Of all the configuration orders, 54% are custom configurations, up 20% over a year ago.
- Approximately 50% of all product that passes through the Integration Center requires custom configuration.
- Under the company's Light Manufacturing initiative to improve product availability and product lead times, ENTEX is currently assembling openbay chassis, hardfiles, and downloading the operating systems into finished PC300 series IBM models.
- In August 1994, ENTEX was the first company to receive ISO certification for distribution and configuration of computer products. ENTEX's Integration Center has since passed two successful ISO audits, most recently in March 1996.

National Service Center

ENTEX's Service Center located in Mason (OH), serves as a consolidated, centralized services location. The Service Center houses the following:

- A centralized national call dispatch center handling more than 18,000 customer calls per month
- The Corporate Account Center providing centralized order fulfillment through trained technical marketing representatives
- An R&D lab providing research, evaluation, and development of proprietary and third-party hardware and software offerings
- A customer briefing center for strategic planning of product rollouts and advanced IT implementation and services
- ENTEX University which facilitates on-going national services training
 - ENTEX provides standardization and quality programs for its technical personnel that include training and certification, call flow standardization, and quality surveys.
 - ENTEX's Customer Engineers attend an average of 90 hours of training per year
 - ENTEX's Systems Engineers and Consultants attend more than 110 hours of training per year.

Clients

A sampling of ENTEX's U.S. clients include Microsoft, Intel, Pacific Bell, U S WEST, ITT, Coca-Cola Co., Home Savings, Paramount Pictures, Bear Stearns, Delta Airlines, GE Nuclear, and Boeing.

Through the company's international alliances, global clients include CIGNA, Best Western, Eastman Chemical, Microsoft, and CAP GEMINI S.A.

In January 1996, ENTEX was awarded a three-year, outsourcing contract with Milwaukee (WI)-based United Wisconsin Services, Inc. for PC acquisition, desktop support, and asset management services.

- Under the "managed-care" agreement, United Wisconsin will pay a fixed-price per desktop for complete PC lifecycle services, including initial acquisition of hardware and software, on-going support, and maintenance.
- United Wisconsin Services is a leading managed care company and an affiliate of Blue Cross/Blue Shield United of Wisconsin.

In November 1995, ENTEX won a three-year, multi-million dollar outsourcing contract to be Microsoft Corporation's primary provider of desktop and network support services for the Microsoft Information Technology Group.

- Under the terms of the agreement, ENTEX provides on-site helpdesk, desktop, and network support services to end-users at 25 locations across the U.S.
- Microsoft also chose ENTEX as its sole outsourced help desk provider for end-user hardware and software

troubleshooting in the U.S. using 45 ENTEX professionals in Redmond (WA).

Marketing and Sales

ENTEX markets its products and services via its direct sales force, and distribution is handled through the company's Integration Center.

Alliances

In November 1994, ENTEX established the ENTEX International Alliance Partnership that sells products, support, and services to international companies, and provides members with access to overseas markets.

- The Alliance consists of exclusive long-term agreements with local market leaders to provide consistent high quality hardware, software, and desktop services.
- The Partnership covers more than 23 countries, 300 sales offices, and 12,000 employees.
- The alliance currently consists of ENTEX (U.S.), Compugen Systems Ltd. (Canada), InfoProducts Europe (the Netherlands) Otsuka Shokai (Japan), Spartan Computers (South Africa), Transmarco (Singapore), and Megesa (Mexico).

In addition to the International Alliance, ENTEX has recently formed the following partnerships:

- In July 1996, Microsoft invested in ENTEX, taking an ownership position. The size of the investment was not disclosed, but it is believed to be less than a 5% interest.
- In June 1996, ENTEX entered into agreements with Microsoft Corp. and Compaq Computer to improve the quality of network solutions provided to Fortune 1000 organizations.
 - Microsoft is making investments in ENTEX to facilitate the placement of 150 dedicated enterprise systems consultants, certified desktop, BackOffice, and product development specialists.
 - These Microsoft specialists will focus exclusively on integrating Microsoft Windows 95, Windows NT, Microsoft Exchange, and BackOffice products.
 - Compaq will work in conjunction with ENTEX to build ENTEX's infrastructure and increase demand for Compaq-based Windows NT enterprise solutions.
- In May 1996, ENTEX announced a partnership with CONNECT, Inc., a provider of electronic commerce software, allowing customers to purchase PC equipment over the Internet with fully secure transactions.
 - The partnership will include the use of CONNECT's OneServer OrderStream software, an Internet-based order management application for business-to-business electronic transactions.
 - CONNECT will also handle hosting services.
- In January 1996, ENTEX and IBM Credit Corporation, a major U.S. financier of information technology and a wholly owned subsidiary of IBM Corporation, announced an alliance allowing ENTEX to offer clients comprehensive financial services at all stages of the PC lifecycle.

ENTEX is also an authorized reseller for all the leading manufacturers including Compaq, IBM, Hewlett-Packard, Toshiba, Apple, and Digital.

In March 1995, ENTEX was designated an International Business Partner in IBM's new international program.

Competition

ENTEX is facing competition from Vanstar (formerly ComputerLand) for the small and medium-sized accounts, as it evolves from reseller to services provider.

Traditional integrators, such as Andersen and EDS, are providing competition as they migrate into the middle market.

ENTEX is also facing strong competition from TSS, which is co-owned by IBM and Eastman Kodak which had been one of ENTEX's largest clients until last year.

INPUT Assessment

ENTEX feels its strengths include:

- A focus on providing customer value

- Experience in the Fortune 1,000 client arena
- The ability to save customers up to 20% and improve service levels by integrating services

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Ernst & Young LLP, Mgmt. Consulting Services

New
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UPDATED:
03/30/1998

Headquarters

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Fax:
(212) 773-5682

Company Web Site:
<http://www.ey.com/>

Summary Info

Vice Chairman: Roger R. Nelson
Vice Chairman: Terrence R. Ozan
Status: Business Unit
Parent: Ernst & Young International, Ltd.
Employees: 11,800 (09/1997)
Revenue: * \$ 2,700.0 mil
Year End Sep-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.
SAP Services	Indonesia
SAP Services	Malaysia
SAP Services	Thailand
SAP Services	U.K.
SAP Services	U.S.
SAP Services (French)	France
SAP Services (German)	Germany

Key Points

- In February 1998, Ernst & Young and KPMG called off a previously announced merger, citing the elaborate and multiple legal approvals needed to complete the merger.
- Ernst & Young's Consulting Services practice works with large corporations on business improvement and transformation programs that integrate process management, information technology and organizational change.
- Ernst & Young's Consulting Services practice has announced a growth strategy, Global State 2002, that is designed to help clients address the business requirements for speed, flexibility, and innovation. Ernst and Young had focused on building systems for efficiency and now recommends expanded solutions that enable clients to grow and better manage their capital.
- Ernst & Young has expressed Global State 2002 (GS/02) as the platform for building consulting capabilities and presence internationally
- Ernst & Young's national practices have been aligned into four Global Client Consulting units for client engagements that are global or pan-regional in scope.
- Ernst & Young's core strategy and service capabilities are designed for large, global, information-intensive organizations that are investing in complex transformations
- Outside the approximately 600 companies within the core strategy, the Middle Market Consulting (MMC) group within consulting services focuses its efforts on organizations with a high potential for growth and rapid expansion that are under one billion dollars in revenue

Company Description

Ernst & Young Management Consulting Services provides a range of systems integration, outsourcing and consulting professional services and applications development tools to large multinational companies.

Ernst & Young Management Consulting Services is one of the business lines of Ernst & Young LLP.

- Ernst & Young was formed in 1989 by the merger of Ernst & Whinney and Arthur Young. The company is one of the six major international accounting and professional services firms.
- Management Consulting Services is one of six businesses within Ernst & Young's Consulting Services unit. Other Consulting Services areas include Business Management Services, Financial Advisory Services, Health Care Consulting, Human Resources Consulting and Entrepreneurial Consulting.

Key Products and Services

Ernst and Young Management Consulting Services has expertise in the areas of:

- Call centers
- Data warehouses
- Enterprise applications solutions
- Java development
- Sales force automation
- Supply chain management
- Systems integration including systems integration for health care and financial services
- Year 2000 readiness

Ernst and Young creates a 'value proposition landscape' to help clients identify the dimensions and degree of value that can be achieved through a systems integration solution. Market value, business process value and systems value are the categories analyzed, leading to prioritization of projects and determining the appropriate level of investment required for each solution to generate the value proposed.

Ernst and Young offers to develop the technology architecture infrastructure that supports seven technology segments: platforms, networks, network-based services, networks & systems management, application technical environment, data management movement environment and document management environment. Development and security architectures are built across the seven technology segments.

Ernst and Young teams with SAP, Baan, Oracle, PeopleSoft, and J.D. Edwards to offer packaged solutions that may be augmented with custom solutions for competitive advantage.

At Ernst & Young, business process reengineering built around packaged software is referred to as Package Enabled Reengineering (PER). Specifically, Ernst & Young has developed the Navigator System Series® methodology to plan, analyze, design, build, and evolve clients' information systems and the Fusion Series to merge process improvements and information technology into a single approach. Whatever name the methodology takes as it is developed for each software vendor, the two basic thrusts of the Ernst & Young solution remains system design, implementation, and management and its relationship to the overall, often reengineered, business goals.

Proprietary tools offered by Ernst & Young are created by Ernst & Young Technologies, Inc., a wholly owned subsidiary of Ernst & Young LLP.

SAP

Ernst & Young offers a systematic way of approaching SAP implementation named the TOTAL solution. This Package Enabled Reengineering includes:

- The Value Proposition. Building the business case for the SAP solution.
- Reality check. Assessing an organization's readiness for change.
- Aligned approach. Setting expectations for short and long-term value. Short-term value is considered essential as it provides visible results from the change process, reinforcing the need for organizational transformation.
- Success dimension. Finding the right blend of people, skills, methods, and management.
- Delivering value. Measuring results throughout the process—Ernst and Young aims to please the client at all stages of the implementation, not exclusively at the project's conclusion.

Ernst & Young is a three-time winner of SAP's Award of Excellence for its work in the integration of financial, accounting, human resources, manufacturing and logistics, and sales and distribution software.

Ernst & Young is an SAP Global Alliance Partner.

Ernst & Young has over 1,700 SAP consultants worldwide.

Baan

Ernst and Young helps clients customize, implement and integrate Baan software packages for finance, manufacturing, distribution, transportation, and service and maintenance solutions..

Ernst and Young offers an array of related tools (some developed in-house, some directly from Baan) to help support a Baan implementation:

- Ernst & Young's Baan-Enabled Reengineering Route Map is the implementation and optimization methodology
- Baan's Dynamic Enterprise Modeler is a set of tools designed to shorten implementation time and configure Baan to the client's distinct requirements. Ernst and Young is currently developing industry-specific templates that incorporate the firm's leading practices into the Dynamic Enterprise Modeler. These templates will be available for the Engineer-to-Order (ETO), Assemble-to-Order (ATO), and Made-to-Stock (MTS) environments.
- Ernst & Young's Baan Industry Reference Models includes Ernst and Young's best practices by industry. The best practices are input in the Baan Dynamic Enterprise Modeler.
- Baan Business Vision Mapping is used to decide which processes should be reengineered with Baan—and which would not benefit from reengineering with Baan.
- Ernst and Young's Baan Financial Integration Reference Model provides insight into Baan's financial modules.
- Ernst and Young's Configurator Data Collection and Set-up Tools is designed to facilitate the analysis and development of product configuration models. The tools available include Configurator Data Gathering Procedures, Sample Data Gathering Worksheets, Product Configuration Workbook and Product Configurator Notes

Ernst and Young also offers People Effectiveness (PE) services to manage the people side of change throughout the Baan implementation.

Ernst & Young is a Baan Implementation Partner.

Oracle

Ernst & Young uses Oracle software to create a global software architecture for financial, order management, and manufacturing processes.

The Oracle-based Package Enabled Reengineering methodology explores the specific capabilities and limits of using Oracle for the transformed enterprise.

Ernst & Young also has created a suite of services to support Oracle's Network Computing Architecture (NCA). The services support Oracle's Web Application Server, Web tools, and Web-deployed applications. The suite includes:

- Extended Enterprise Computing Services—extends NCA's benefits to the entire supply chain.
- Enterprise resource planning integration services—implements Oracle Web-deployed Applications
- Web infrastructure services
- Security services

Ernst & Young is an Oracle Business Alliance Program partner.

PeopleSoft

Ernst & Young uses PeopleSoft software for human resources, financials, order management, manufacturing/distribution, and inventory.

The PeopleSoft modules are tailored to the key goals and objectives created from 'value propositions' developed using the FUSION Systems Series to identify goals and objectives and EY Director, a groupware-based project management tool from the Navigator Systems Series, to manage the process.

Ernst & Young has over 400 PeopleSoft consultants worldwide, 250 of which are located in the United States.

Ernst & Young has been a PeopleSoft Implementation Partner for over 7 years.

Outsourcing

Ernst & Young offers outsourcing through its Business Transformation Synergy (BTS) group.

Geographic Presence

Ernst & Young has 660 offices in 134 countries.

Any project with a multinational scope has a single point of contact through one of the Global Client Consulting groups. Six offices in Europe are staffed for multinational projects, seven offices in Asia/Pacific handle projects, and five in Latin America serve as contact points. North American-Asian multinational projects work through the San Francisco office and North American-Latin American projects are served by Miami.

Alliances

Ernst and Young has alliances with Antares Alliance Group, Arbor Software, Aurum Software, IBM, JD Edwards, Lotus Development Corporation, Manugistics, Microsoft, Oracle, QAD Incorporated, SAP and Smart Corporation.

Knowledge Centers and Practice

Ernst & Young has a number of centers developed to share 'best practices' and create an interactive environment for clients to explore solutions. The following are currently in place for the benefit of clients and the advancement of Ernst & Young's knowledge base:

- Advanced Development Center—offers complex client/server solutions
- Ernst & Young Center for Business Innovation™—develops innovative strategies, processes, and technologies designed to deliver high value to business.
- Ernst & Young Center for Business Knowledge™—information resource center to gather, package, and facilitate information sharing within Ernst & Young
- Ernst & Young Center for Business Transformation

Ernst & Young Consulting Services vision for the increasing importance of the practical application of information technology is evidence by the formation of an investment opportunity-seeking practice named the Global Knowledge Based Business practice.

Clients

Clients include Alliance Blue Cross/Blue Shield, American Express, Bechtel, Coca-Cola, Continental Bank, Farmer's Insurance, GTE Supply, Heineken, Mastercard, Nissan, and USS Kobe.

Assessment

Ernst & Young considers its strengths to include:

- A focus on providing value to the client that is reflected by new service capabilities and a new structure for worldwide organization
- Global services delivery that are flexible enough to recognize local differences while achieving services that are consistent in quality and value-added globally
- End-to-end professional services and project management (Think, Build, and Operate) aimed to accelerate the client's achievement of value
- A balanced ratio of consultants between those with predominant business skill and those with predominant technical skill (40:60) that leads to balanced views of solution architecture and integrated delivery
- A well-developed knowledge-sharing culture that aids the development of best practice tools for solution creation

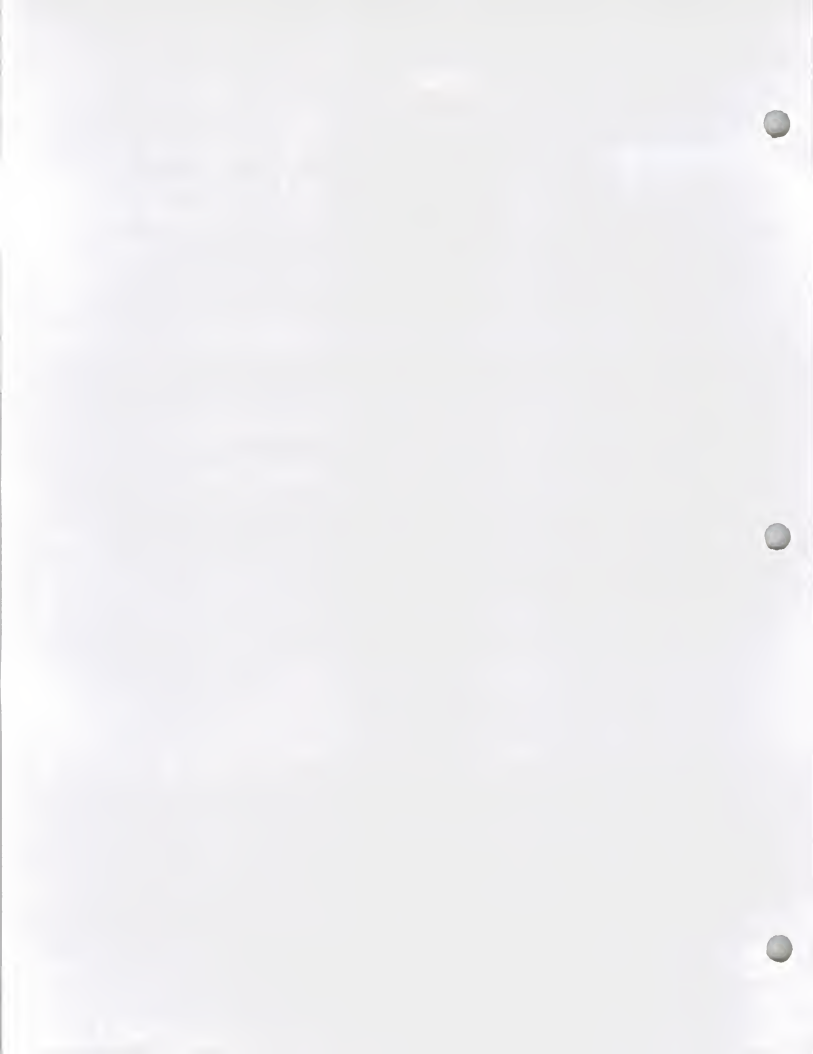
Roger Nelson, Deputy Chairman of Ernst & Young, LLP, is planning to aggressively expand its client-partnering decrees. The existing Microsoft-based solutions development facility, the Java Initiative Consulting group and the Intel Architecture-based Solution Center are the first of cooperative arrangements that help address the growing technology labor shortage.

Including the client-partnering decrees, Ernst & Young has a great (and extraorganizational) experience base, the flexibility of offering a wide range of products, and the cooperation of vendors in developing skilled labor.

INPUT predicts that other large consultancies will not rush to embrace the concept of client-partnering decrees with the same level of commitment as Ernst & Young. If Ernst & Young Management Consulting can leverage its identification of human resources issues, market share and momentum will be gained. When rivals begin clamoring for the attention of leading software vendors' training departments, the vendors will respond. The question remains as to whether being first to market in this case will result in a long-term advantage. INPUT feels that Ernst & Young's competitors may develop even more innovative practices that are combined with more extraordinary consulting expertise. Ernst & Young is doing well to broaden its focus beyond large organizations with the expansion of the Middle Market Consulting group.

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ESG Elektroniksystemund Logistik GmbH

New Search

UPDATED:
10/01/1996

Headquarters

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Germany

Phone:
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Fax:
+49 89 92162631

Summary Info

Chairman:	Dr. Norbert Servatius
Status:	Limited
Employees:	800 (12/1995)
Revenue:	\$ 127.0 mil
Revenue (DM mil):	190.0

Year End	Dec-1995
-----------------	----------

Key Points

- Large German professional services vendor
- About 80% of business in the government sector, where ESG offers customised military Information Systems
- Increased focus on the private sector
- 90% of ESG owned by Alcatel SEL, Rohde & Schwarz and Siemens

Company Description

ESG was founded in 1967 by AEG-Telefunken, Rohde & Schwarz, SEL and Siemens. In 1970, ESG acquired a 50.4% share in FEG (Flug-Elektronik-Gesellschaft mbH) — a company specialising in aircraft navigation systems. The two companies then merged in 1992 under the name of ESG.

ESG plans and develops complex information systems. It designs systems and monitors their implementation. Independent of any hardware manufacturer and/or standard software provider, ESG delivers sophisticated, tailor-made information systems.

Operations and Structure

Exhibit 1 shows ESG's ownership structure.

ESG is organised into the following business units:

- Elektroniksystem-Entwicklung (communication systems development)
- Einsatz- & Informationssystementwicklung (application & information systems development)
- Systemeinführung / Product Support (implementation / product support)
- Logistik (logistics)
- Informationstechnische Dienste (technical services).

Financials

Exhibit 2 shows a five-year summary of ESG's financial performance.

Exhibit 1

ESG
Ownership Structure, 1995

Company	Percentage owned
---------	------------------

Alcatel-SEL	30%
Rohde & Schwarz	30%
Siemens	30%
Teldix	5%
Litef	5%

Source: ESG

Exhibit 2

ESG
Five-Year Financial Summary, DM Millions

Year	1991	1992	1993	1994	1995
Revenue in DM Millions	170	170	175	180	190
Annual Growth Rate	0%	0%	3%	3%	6%
Revenue per Employee	0.198	0.208	0.223	0.236	0.238
Annual Growth Rate	4%	5%	7%	6%	1%

Source: ESG / INPUT

Market Analysis

Exhibit 3 provides INPUT estimates of ESG's revenues by delivery modes.

Estimates of ESG's software and services revenues by industry sectors are shown in Exhibit 4.

Exhibit 3

ESG
Revenues by Delivery Mode, 1995, \$ Millions

Delivery Mode	Revenues in \$ Millions	Share
Application Software Products	2	2%
Professional Services	100	79%
Systems Integration	8	6%
Systems Operations	1	1%
Processing Services	10	8%
Network Services	1	1%
Total Software & Services		96%
Equipment & Other (Non-IT-related Consulting etc.)	5	4%
Total	127	100%

Source: INPUT Estimates
Percentages rounded

Exhibit 4

ESG

Estimated Software & Services Revenues by Industry Sector, 1994, \$ Millions

Industry Sector	Revenue in \$ Millions	Share
Discrete Manufacturing	26	21%
Telecommunications	1	1%
Central Government	90	74%
Local Government	5	4%
Total Software & Services		100%

Source: INPUT Estimates
Percentages rounded

Exhibit 5

ESG
Five-Years Summary Human Resources

Year	1991	1992	1993	1994	1995
Number of Employees	858	816	783	764	800
Annual Growth Rate	-4%	-5%	-4%	-2%	5%
Revenues per Employee in \$ Millions	0.132	0.139	0.149	0.157	0.158
Annual Growth Rate	4%	5%	7%	6%	1%

Source: ESG / INPUT

Employees

Exhibit 5 provides ESG's development in number of employees and ratio of their performance.

Key Products and Services

The following list shows the main products and services offered by ESG's business units.

Elektroniksystem-Entwicklung specialises in defence-related information systems for F-16 Tornados and other Avionik planes, including helicopters.

Einsatz- & Informationssystem-Entwicklung provides military reconnaissance systems, command systems, systems for space and satellite evaluation, air traffic control systems as well as information management systems for industry and government.

Systemeinführung / Product Support offers product support in the military sector, the car industry and other industries. Additionally, it develops diagnostic test systems and provides technical documentation services.

The **Logistik** business unit is focused on logistical information systems, materials management and technical support.

Informationstechnische Dienste, ESG's business unit, is responsible for graphics and print design, datacentres, microfilm, CD-ROM, quality management systems and personnel databases.

ESG's major products include:

OSIDOK, an object-oriented information and documentation management system, based on a central database supplying relevant applications in planning, design, construction, sales and customer service with information, e.g. specification, system design, purchase forms or handbooks for operation and maintenance. ESG offers OSIDOK interfaces to relational database systems, desktop publishing systems and CAD applications.

MEDAS, an expert system for logistics management which is able to detect weaknesses and optimise a client's existing logistical infrastructure.

DBMS, a decentralised storage system.

ESG-GANESI, a software package for controlling long-distance gas pipelines.

Recent Projects

ESG completed a project in 1995 for the German ministry of defence, delivering the complete ADLER weapon system. ADLER comprises several vehicles, for which ESG supplied equipment. ESG aims to reduce response times and improve co-ordination between different weapons systems via real-time data transmission. ESG won a contract from DAF Trucks N.V. The project aims to provide approximately 1000 European DAF distributors with a spare parts catalogue on CD-ROM which then will replace the existing microfiches and paper catalogues.

Clients

Exhibit 6 shows a sample of ESG's major clients.

In 1994, ESG and GLI (Gesellschaft für Logistik und Informationssysteme) founded an EDI-Centre as part of a co-operation agreement. The centre aims to support clients in the growing demand for electronic trading. Existing capacities are able to convert all common standards (UN/EDIFACT, VDA, ODETTE, SEDAS, EANCOM and ANSI X.12). Additionally, the EDI-Centre provides gateways to the IBM network, to GEIS, to Deutsche Telekom and AT&T.

Exhibit 6

ESG Major Clients 1995/96

• Adam Opel AG	• Bundesamt für Wehrtechnik und Beschaffung
• Alcatel-SEL	• DAF N.V.
• BAPT	• Degussa AG
• Bundesverteidigungsministerium	• Deutsche Aerospace AG
• BMW AG	• Deutsche Flugsicherung
• BMW Rolls-Royce GmbH	• Dornier GmbH
• Bosch-Siemens Hausgeräte	• Erdgas Südbayern

Source: ESGAlliances

In September 1994, ESG signed a co-operation agreement with the French system house SITE. This co-operation focuses on logistics, information management and documentation systems. ESG and SITE plan to jointly develop a market in Eastern Europe, specifically in Poland, Hungary and the Czech Republic.

INPUT Assessment

ESG is one of the "hidden" players in the professional services marketplace. Although it has adequate critical mass to bid for large projects, ESG has thus far rarely emerged as a competitor to vendors in this segment, as ESG only addresses government and particularly the military/defence sector. But ESG is now placing a lot of emphasis on expanding business in the private sector which so far only accounts for some 20% of its revenues. ESG's target is to significantly increase project volumes in the private sector.

Operating in a very specific area, ESG has the clear advantage of being able to manage all phases of large projects from planning, design and implementation to documentation. For approximately 70% of all projects, ESG acts as the prime contractor. In only 30% of them is ESG a subcontractor for another vendor.

However, the focus on tailor-made military IT-systems seems to be risky in times of declining defence budgets in the government sector. Therefore ESG's future position in the professional services market probably depends heavily on the successful development of a client base in the private sector as well as new geographic markets in which Eastern Europe is an attractive — but again risky - opportunity for investment.

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EUnet Communications Services B.V.



UPDATED:
02/01/1996

Headquarters

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NL-1017 AZ Amsterdam
Netherlands

Phone:
0031-206233803

Fax:
0031-206224657

Company Web Site:
<http://www.EU.net>

Summary Info

CEO:	Wim Vink
Status:	Private
Employees:	350
Revenue:	\$ 24.0 mil
Year End	Dec-1994

Key Points

- Pan-European Internet Services Provider
- EUnet's revenue is expected to have grown by 100% in 1995
- EUnet offers Internet access from over 275 dial-up locations (POPs) in 41 countries
- Beside its strong position in the commercial market, EUnet will also focus on Internet services in the private sector
- In 1995, EUnet established alliances with Novell and Netscape.

Company Description

EUnet was founded in 1982 by the European UNIX Users Group. In 1990, EUnet changed its focus towards commercial services, introducing a complete service "InterEUnet", using TCP/IP network protocols. Since then, the EUnet Group has grown to become the leading provider of Internet services in Europe. Today, EUnet provides a wide range of network-based services to over 50,000 customer sites, supporting several hundreds of thousands of individual users.

EUnet is a member of a number of international organisations, including the Commercial Internet eXchange Association (CIX), TERENA, RIPE NCC, and ISODE.

Operations and Structure

The EUnet Group consists of 28 operating companies covering 41 countries, managing its own dedicated infrastructure. Each national EUnet Service Provider covers its own region(s) and offers its own operations and customer support.

The operation is managed from EUnet's European Network Operations Centre based in Amsterdam (The Netherlands). The Amsterdam location is controlling European-wide communication links, traffic flows and network planning.

EUnet currently runs hubs in the Netherlands and Finland and plans to set up hubs in the UK and in France.

Beyond Europe, EUnet offers support and service for most countries of the Commonwealth of Independent States (CIS-the countries of the former Soviet Union), as well as North Africa. EUnet's network has over 275 dial-up locations (Point of Presence or POP's) and has peering agreements and direct connection with other major commercial and research networks in Europe, the US and Australia.

EUnet's transatlantic link to the US, rated at 4MB, is the largest capacity commercial link of its kind. Furthermore EUnet plans to double this capacity in late 1995. The link has been designed to operate over two separate transatlantic cables (PTAT and TAT-10).

Financials

As a privately-owned company, EUnet does not publish detailed financials. It achieved a turnover of approximately ECU20 million in 1994 which will be followed by revenues of around ECU50 million in 1995. EUnet reported a "healthy profit" for 1994 which it expects to consolidate in 1995.

Market Analysis

Exhibit 1 shows EUnet's revenues by delivery mode.

Exhibit 1

**EUnet
Revenues by Delivery Mode 1994
(\$ Millions)**

Delivery Mode	Revenues in \$ Millions	Share (%)
Network Services	24	100%
Total Software and Services	24	100%

Percentages are rounded
Source: INPUT Estimates

Exhibit 2

**EUnet
European Revenues by
Industry Sector 1994 (\$ Millions)**

Industry Sector	Revenues in \$ Millions	Share (%)
Discrete Manufacturing	4	17%
Process Manufacturing	4	17%
Transportation	1	4%
Retail Distribution	2	8%
Banking and Finance	8	33%
Insurance	1	4%
Business Services	4	17%
Total Software and Services	24	100%

Percentages are rounded
Source: INPUT Estimates

Geographic Markets

Exhibit 3 shows EUnet's revenues by country.

Exhibit 3

**EUnet
European Revenues by
Country 1994 (\$ Millions)**

Country	Revenues in \$ Millions	Share
France	2	8%
Germany	5	21%
UK	3	13%
Italy	1	4%
Netherlands	5	21%
Belgium/Luxembourg	1	4%
Spain	1	4%
Switzerland	1	4%
Austria	1	4%
Sweden	1	4%
Denmark	1	4%
Norway	1	4%
Finland	1	4%
Total Software and Service	24	100%

Percentages are rounded

Source: INPUT Estimates

Exhibit 4

**EUnet
Human Resources 1994**

Year	1994
Headcount	350
Revenue per Employee in \$ millions	0.070

Source: INPUT

Employees

Exhibit 4 shows EUnet's 1994 headcount and its performance.

Key Products and Services

EUnet's range of Internet access services includes:

- **InterEUnet** provides a permanent dedicated connection to a full range of Internet services. It allows a large number of users to access the Internet concurrently via leased line and offers the opportunity to connect customer's own server machines
- **DialEUnet** is a full Internet connectivity service. DialEUnet allows large number of individual users to access the Internet, with the connectivity service being provided via ISDN or a dial-up modem connection
- **PersonaleEUnet** is a full Internet service connection for single-users, provided via dial-up modem or ISDN connection. This service provides a low cost entry level dial-up access
- **EUnetMail & News** allows users to send and receive data (text, pictures or voice) to all other network users. It allows users to join special or general discussion groups and exchange views and information around the world
- **EUnetWeb** provides access to all the Home Pages on Web Sites in the WWW. The service is available in a light-weight version (the customers rent resources on an EUnet Web Server) and a heavy-weight version (customers provide their own server for hosting at an EUnet POP, or customers lease an entire EUnet web Server)
- **EUnetTraveller** with an expanding network of over 250 POPs, is a service designed for frequent business travellers. It connects users from anywhere in Europe directly to their office. This usually means just a local call. Customers requirements are an EUnetTraveller account, a portable computer, a modem and access to a telephone line.

Sales and Marketing

EUnet, while actively offering services to the individual Internet user, focuses its activities on providing Internet access for both national and multi-national companies regardless of size.

EUnet is using its leading position in the provision of Internet services to develop and market a growing range of new value-added services for enhanced user benefit.

Alliances

In June 1995, Novell Europe signed an agreement with EUnet to offer business users a one-stop-solution for full access to the Internet by combining EUnet and Novell technology in one product offering. The data behind the agreement is to simplify user's choice for Internet access software and Internet service provision. Novell now provides the PC software to facilitate the full range of Internet services, including the ability to send and receive Internet electronic mail, while EUnet provides the Internet services and connectivity. Initially, Novell products offered will include the recently launched LAN Workplace 5, Novell's premiere desktop TCP/IP solution which provides networked and remote Windows and DOS users with concurrent access to the Internet. The agreement also covers UNIX and NetWare network resources over TCP/IP, and NetWare Multi Protocol Router 3.0 (MPR), Novell's high-performance, software-based, local and wide area router.

In October 1995, EUnet and Netscape signed a licensing agreement enabling EUnet to distribute Netscape Navigator 1.2, and the dial-up kit, with EUnet Internet access. The deal covers the entire operation of 28 EUnet operating companies. Through this agreement Netscape will gain access to the rapidly growing pan-European Internet market. Initially EUnet will distribute Netscape Navigator 1.2, plus dial-up kit, but will upgrade to the newly announced Netscape Navigator 2.0, due for release in December 1995.

Competitors

Among EUnet's competitors are online service providers like CompuServe as well as the telecom

companies. EUnet also faces local competition in almost every major European country with companies like the BULL subsidiary NTG Telematik GmbH XLINK in Germany.

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Excite, Inc.



UPDATED:
01/01/1996

Headquarters

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U.S.

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(415) 943-1200

Fax:
(415) 943-1299

Company Web Site:
<http://www.excite.com>

Summary Info

President/CEO:	George Bell
Status:	Public
Employees:	38 (05/1996)
Revenue:	\$ 14.8 mil
Year End	Dec-1996

Key Points

- Excite, Inc. is a provider of Internet navigation services including Excite Search, Excite Reviews, Excite City.Net, Excite Live!, Excite's Magellan, Regional Editions, and Exciteseeing Tours.
- In October 1996, Excite launched Exciteseeing Tours, a new service providing a unique way to find information on the Internet through "tours".
- In September 1996, Excite announced the addition of Excite Live!, a service that delivers timely, personalized information from on-line magazines and newspapers.
- During 1996, Excite entered into strategic alliances with several vendors, including Intuit, GeoSystems Global Corporation, Sega of America, Magellan, Marimba, and Headbone Interactive.

Company Description

Excite develops and provides targeted Internet navigation services and products designed to allow consumers, content providers, and advertisers to interact more effectively on the Web.

Founded in 1994 as Architect Software, Inc., Excite seeks to develop and introduce consumer-focused navigation services and products by combining its proprietary navigation technology with its media expertise.

In April 1996, Excite completed an initial public offering of two million shares of common stock, raising \$31.6 million to be used for general corporate purposes, including strategic acquisitions of complementary products, businesses, and technologies.

Organization and Structure

Excite is headquartered in Mountain View (CA). The company's communications hardware and a portion of its computer software are located in San Jose (CA).

The company's key executives are summarized in the following exhibit:

Excite, Inc. Key Executives

Name	Title
George Bell	President & CEO
Brett T. Bullington	Sr VP, Marketing & Sales
Joseph R. Kraus IV	Sr VP, Business Development
Cary H. Masatsugu	VP, Engineering
Richard B. Redding	Director of Finance, Acting CFO & Secretary
Graham F. Spenser	VP, Technology & CTO
James G. Bellows	Executive Editor
Stephen A Childs	Director of Clubs

Company Strategy

Excite's objective is to establish itself as the leading branded media service for day-to-day interaction among consumers, advertisers, and content providers on the Web.

The company seeks to continually understand the behavior of its consumers as they navigate and to develop custom packages for individual consumer segments.

Excite believes that this customer focus and the creation of a branded consumer experience will allow it to deliver better value to advertisers interested in maximizing their advertising efficiency and to content providers eager to expose their content to consumers.

The key elements of Excite's strategy include:

- Maximizing consumer usage by increasing the number of available points of entry
- Maintaining and extending the technology leadership gained from the company's proprietary technology for searching, retrieving, and indexing information
- Expanding and enhancing editorial leadership by creating a strong and credible editorial voice on the Web through the development of the company editorial staff
- Developing alliances with media partners
- Leveraging the media and technical expertise of management and employees

Financials

Revenue for 1995, Excite's first full year of operation, was \$434,502.

During 1995, the company reported an operating loss of \$10.6 million (\$0.31 per share).

Revenue Analysis by Product/Service

Approximately 67% (\$291,000) of Excite's 1995 revenue was derived from contracts, and the remaining 33% (\$143,000) was derived from advertising.

Interim Results

Revenue for the six months ending June 30, 1996 was \$3.3 million, compared to \$250,000 for the same period in 1995.

Excite reported a net loss of approximately \$10.6 million (\$0.98 per share) for the period, compared to a net loss of \$295,000 (\$0.03 per share) during the same period the previous year. The loss included a \$5 million pre-tax charge for Excite's designation as a "Premier Provider" on the Netscape home-search page.

Acquisitions

In August 1996, Excite acquired Sausalito (CA)-based McKinley Group, Inc., parent of the Magellan navigation service and creator of the Magellan On-Line Guide, for \$18 million in stock.

- This acquisition positioned Excite as the second largest Internet search and directory service, and merged the two largest editorial staffs in the industry.
- Excite now owns two of the five Premier Provider links on the Netscape Net Search page.
- The transaction was accounted for as a pooling of interests.

In November 1995, Excite acquired certain assets of City.Net, a Portland (OR)-based developer of automated software systems for managing content and links over the Internet, for approximately \$534,000.

Employees

As of March 31, 1996, Excite had 38 full-time employees, segmented as follows:

Marketing and sales	12
Research and development	14
Operations	5
Finance and administration	7
	38

Key Products and Services

Excite provides a suite of navigation services for consumers seeking to access and use the World Wide Web and also provides its Excite Web Server (EWS) navigation product to content providers who want to increase visibility on the Web.

Consumer Services

Excite offers a suite of navigational services that targets the mass market of Internet consumers, various topical and regional affinity groups, and individual users. All of Excite's consumer services are available free of charge to consumers.

NetSearch permits users to find Web content by searching on Excite's index of over 1.5 million Web documents.

- Users can navigate from Excite's main Web database or the Usenet News and Usenet Classifieds databases
- NetSearch is targeted at a mass market audience of Internet customers, and geared to helping users find content on the Internet.
- Excite's proprietary navigation technology provides the following enhanced searching and browsing capabilities:
 - Concept-based searching, permitting consumers to find documents relevant to their query
 - Browsing tools, consisting of query-by-example, allowing consumers to find similar documents to their initial query, and automatic abstracting technology, which creates a summary of a Web document
 - Distributed spider data collection technology which periodically updates the company's indices

NetDirectory offers consumers a subject-oriented catalog, with over 55,000 Web site reviews in 16 subject categories.

- Targeted at the mass market of Internet consumers in addition to smaller affinity audiences, NetDirectory allows consumers to find reviews by browsing a series of categories and subcategories or by searching directly using Excite's concept-based search technology.
- Excite intends its reviews to help narrow information choices to high quality Web sites and to present information in an entertaining style.

City.Net is a guide that combines the features of an atlas, gazetteer, and almanac, in addition to local guide books and newspapers.

- Targeted at geographic affinity groups, City.Net helps users locate regional content using a geographically organized database which is continually updated to provide access to information on travel, entertainment, local business, government, and community services for a number of major cities and regions throughout the world.

Personal Excite enables consumers to create a personal profile used to define and monitor favorite NetDirectory categories, receive briefs on personally selected categories of Reuters news articles, monitor stock quotes, check local movie times, and receive updates on local weather.

- Consumers can customize their own interfaces to Excite's NetSearch service, allowing them to define and access frequently used searches, favorite URLs, and links to a number of popular daily columns on the Web.

Excite Live! delivers information from on-line magazines and newspapers, working autonomously to gather and deliver timely Web content based on the individual's pre-defined interests.

- Excite Live! provides updated information regularly throughout the day, delivering news, sports scores, stock quotes, and weather reports, as well as daily Web reviews and columns from Excite's editorial team.
- The service also scans the Web several times a day, including more than 300 top Web sites containing the New York

Times, Business Week magazine, the Hollywood Online entertainment site, and various newsfeeds.

Exciteseeing Tours, introduced in October 1996, is a new service that provides "tours" written by Excite's editorial team, magazine editors, celebrities, and the Internet community, to provide information and links to help users find specific "how to" information.

- There are currently more than 225 tours available, organized by category, and including themes such as "Fixing Your Credit Rating," "The Clowns of Silent Film," and "Patenting Your Invention."

Content Provider Services

Excite Web Server (EWS), when installed on a Web site, helps visitors quickly search and browse the content contained on that site.

Currently available free of charge, EWS is based on the company's proprietary navigational technology, including its concept-based retrieval and browsing tools.

Advertising

Prior to October 1995, Excite derived its revenue from contracts, which consisted primarily of custom product development and consulting. In October, 1995, Excite began selling advertising space on its Web sites.

The company generally enters into agreements with its advertising customers under which Excite guarantees a minimum number of impressions for a fixed fee. The company charges higher per-impression fees for advertising products that target a particular audience. List prices for advertising ranges from \$25 to \$50 per thousand impressions (CPM).

Advertisements on the Excite service are banner or billboard style advertisements and are displayed on the interface of all Excite navigation services.

Excite offers a variety of advertising programs that enable advertisers to target their audiences at various levels of market segmentation: mass market placement, affinity placement, and individual placement.

- General Rotation--A program that allows advertisers to reach a large number of Web consumers. Advertising banners rotate through well-trafficked Excite pages, including the main NetSearch and NetDirectory pages and NetSearch result pages. The General Rotation program delivers a high volume of mass market consumers and provides frequent exposure to advertisers.
- City.Net--A program that allows advertisers to direct advertisements to geographical affinity groups.
- Keywords--Excite's keyword program offers advertisers an opportunity to target specific audience by assigning ad banners to certain key words or concepts.
- Personal Excite--Advertisers can deliver finely targeted messages to groups of individuals.

Clients

Excite's clients include Internet Service Providers (ISPs), educational institutions, telecommunications operators, and on-line service vendors.

A sampling of clients includes MPS/UUNET Communication Services, MCI Telecommunications, NETCOM, America Online, University of Washington, Apple Computer, Ohio Supercomputer Center, and SURAnet.

Marketing

Excite's marketing strategy includes increasing market penetration by attracting new consumers through increased visibility on Internet access points. The company targets large, frequently used areas, including Web sites such as that operated by Netscape, and Internet gateways from on-line services like America Online and CompuServe.

The company also targets mid-sized and smaller access points such as relatively well-subscribed ISPs, including NETCOM On-Line Communication Services, and popular Web sites operated by Intuit.

Excite also purchases on-line advertising on popular Web sites such as Netscape, Time Warner's Pathfinder and ESPN sportszone, and traditional print advertising in popular Internet-related consumer publications like Wired magazine.

Advertising and Sales

Advertising has been sold primarily through a combination of a direct sales force and Double Click, a Mountain View-(CA)-based advertising sales agency. The company is currently expanding its in-house advertising sales force, based in San Francisco (CA) and New York (NY).

A sampling of companies who advertise on Excite include AT&T, MCI, NYNEX, IBM, Microsoft, Netscape, Barnes and Noble, CyberCash, PC Flowers, Hearst New Media, Encyclopedia Britannica, and Honda.

Alliances

A key element of Excite's business strategy is to enter into relationships with both Internet access points and content providers.

The company has entered into a number of strategic alliances, including distribution alliances, which provide Excite access to a wider user base, and media alliances, which are intended to help the company provide specific content to affinity groups.

Distribution Alliances

Excite has entered into distribution agreements with providers of Internet access in order to increase user traffic to its services, including the following:

- Excite has an agreement with Netscape Communications under which the company is designated as one of the five "Premier Providers" of search and navigation services accessible from the "Net Search" button on the Netscape home page.
- America Online features a co-branded version of the Excite service as one of the premier Internet search and directory services for AOL members.
- In July 1996, Excite and GeoSystems Global Corporation announced a distribution agreement to provide Internet users with access to GeoSystems' MapQuest's interactive worldwide mapping solution.
- In May 1996, Excite and Sega of America entered into an agreement to jointly develop custom search and directory services for Sega Saturn NetLink, an Internet-ready video game console. Under the agreement, Excite is the exclusive navigation partner, applying its proprietary Web-navigation technology and branded media services.

Media Alliances

Excite has entered into strategic alliances to strengthen its service and product offerings and to build brand awareness. The company engages in technology licensing, revenue sharing, syndication, co-branding, regional development, and access point arrangements. Among others, media alliances include:

- In October 1996, Excite and Marimba Inc. announced the Excite Channel Guide, a comprehensive directory of channels on the Web including their content, descriptions, reviews, and multimedia previews, using Marimba's Cast.net technology. Castanet is an enabling technology that developers can use to create and distribute full-featured media applications over the Internet or corporate intranets.
- In October 1996, Excite and Headbone Interactive announced a strategic partnership to offer classrooms and families Headbone's Netscapade, a game designed to enable users to exploit the research potential of the World Wide Web.
- In August 1996, Excite and Intuit formed an alliance to bring "the best" financial information on the Internet directly to Intuit's Quicken users.
- In April 1996, Excite announced an agreement in principle with Virtual City, a rapidly growing Internet-related magazine partially owned by Newsweek magazine, whereby Excite will take a one percent equity position in Virtual City and run Virtual City ad banners on its Web-site with a link to Virtual City subscription services. Virtual City would display Excite's logo on the cover of every issue of Virtual City through the end of 1998.
- Excite has a regional service agreement with the Los Angeles Times under which the company produces a Southern California-focused version of Excite linked to the LA Times Web site.
- Excite has an agreement with Tribune Media Services (TMS) providing TMS with exclusive worldwide syndication rights to Web review columns from the Excite editorial staff.
- Excite has a licensing agreement with International Data Group under which Excite licensed to IDG searching and indexing technology in exchange for a fee.
- Excite has a non-exclusive licensing agreement with Reuters under which Excite is provided general news in seven categories for use on one of the company's services, including Excite and Personal Excite. Under the agreement, Excite shares with Reuters a portion of the advertising revenue generated from ads displayed along with Reuters content.

Competition

The primary competitors of Excite's services and products are Internet search and retrieval companies such as Infoseek, Lycos, Open Text and Yahoo!, and specific search and retrieval services and products offered by other companies such as America Online's Web Crawler and Digital Equipment Corporation's AltaVista.

Excite also competes indirectly with services from other database vendors such as Lexis-Nexis, Dialog, and other companies that offer information search and retrieval capabilities with their core database products.

INPUT Assessment

Excite's strengths include:

- It's increased presence on the Netscape Net-Search page resulting from the McKinley Group acquisition
- The company's proprietary search technology
- An extensive media staff
- Company management's experience in technology and media

Future challenges include:

- Developing advertising capabilities to increase revenue base and movement toward profitability
- Competition from vendors in a variety of industries
- Expanding services to further attract consumers and advertisers

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First Data Corporation



UPDATED:
06/01/1996

Headquarters

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Hackensack, NJ 07601
U.S.

Phone: (201) 525-4700 **Fax:** (201) 342-0401

Company Web Site:
<http://www.firstdata.com>

Summary Info

Chairman/CEO:	Henry C. Duques
Status:	Public
Employees:	40,000 (12/1996)
Revenue:	\$ 4,938.1 mil
Year End	Dec-1996

Key Points

- First Data Corporation (FDC) provides a range of information and transaction processing services.
- The acquisition of First Financial Management Corporation (FFMC) during 1995 more than doubled FDC's revenue. While FDC and FFMC had common merchant credit card processing, collections, and payment instruments businesses, FFMC's other major service areas (including check authorization and guarantee services, health care claims processing services, imaging services, and in-store banking services) represent new service areas for FDC.
- As a result of the acquisition of Western Union's money transfer business, FDC is actively pursuing the divestiture of its MoneyGram™ operation to satisfy an agreement with the Federal Trade Commission.
- The acquisition of Card Establishment Services, Inc. (CES) in 1995 expanded FDC's merchant processing business. The operations of CES have been merged with FFMC's NaBANCO merchant credit card processing operations, and FDC's Envoy and TeleMoney credit and debit card authorization services. The combined organization is known as First Data Merchant Services.
- FDC rolled out its Merchant Bank Alliance Program in 1995. To date, 10 banks, representing more than \$50 billion in annualized merchant card volume, have joined the program.

Company Description

FDC provides a range of processing services, including transaction processing and back-office support for card issuers; merchant and consumer payment services; debt collection and accounts receivable management; mutual fund processing; health care claims administration; data imaging and information management; and other related services.

Operations/Structure

FDC is organized into the following major service areas:

- Domestic Card Issuer Services** - FDC's Card Services Group, based in Omaha (NE), provides the infrastructure for financial institutions to meet the needs of their cardholders: credit, debit, and commercial card programs; database marketing; fraud/risk management; financial recovery; customer service; co-branding; application processing; and card embossing. These services also are provided for private-label, co-branded and oil credit card programs. Principal offices are in Lenexa (KS), Marietta (GA), Omaha (NE), and Tulsa (OK).
 - First Data Resources provides third-party processing of bankcard transactions.
 - This service area also includes FDC's debt collection and accounts receivable management business (Nationwide Credit and ACB Business Services).
- Domestic Merchant Processing Services** - FDC's Card Services Group provides a complete range of credit and debit authorization, processing and settlement services to financial institutions and independent sales organizations for their merchant customers. Merchant clients receive state-of-the-art processing services, including Internet-based processing, check processing capabilities, customized programs, and a comprehensive fraud-management database. Principal facilities are in Palo Alto (CA), Aurora (CO), Hagerstown (MD), Houston (TX), Melville (NY), and Sunrise (FL).
 - First Data Merchant Services (which combines the operations of FFMC's NaBANCO operations with FDC's Card Establishment Services and Envoy operations) provides authorization, processing, and settlement of credit and debit card transactions.
 - TeleCheck, based in Houston, provides the verification or guarantee of check transactions.
 - The First Data Merchant Bank Alliance and USA Value Exchange programs reflect FDC's commitment to partner with its clients. Alliance banks benefit from merchant processing—primarily through First Data Merchant Services, which provides card payment processing services and is a leading processor of merchant Visa and MasterCard transactions. In 1995, First Data formed the USA Value Exchange, a partnership owned by credit

card issuing and acquiring financial institutions that will become operational in 1996. Member financial institutions have the opportunity to offer customized promotions to consumers. FDC manages the day-to-day operations of USA Value Exchange and provides related processing services and technology enhancements.

- **International Card Services** - FDC's principal processing facilities outside the U.S. include the following units:
 - FDR Limited provides bankcard transaction processing services in the U.K.
 - First Data Resources Australia operates the largest independent funds transfer network in Australia.
- **Payment Instruments** - FDC's payment instruments business consists of two key units: Western Union Financial Services and Integrated Payment Systems (IPS).
 - As a worldwide leader in electronic consumer nonbank money transfer services, Western Union helps its clients send money practically anywhere, anytime.
 - In 1995, IPS Retail Services, the nation's second-largest provider of money orders, introduced a new transaction-processing system that automates money order sales. IPS Financial Services provides check outsourcing services to financial institutions.
 - The consolidation of Western Union and IPS is taking shape. This new organization will further position FDC as a leading worldwide provider of processing services in electronic commerce.
 - Principal facilities are in Bridgeton (MO), Englewood and Lakewood (CO), and Paramus (NJ).
- **Investment Processing Services** - First Data Investor Services (formerly The Shareholder Services Group), based in Boston, provides integrated and customized mutual fund processing services to investment organizations and the banking industry. Additional facilities are in Marlboro and Westborough (MA).
- **Health Care Administrative Services** - FDC's FIRST HEALTH® unit, acquired with FPMC, provides health care claims processing and cost management services to the self-insured corporate market. FIRST HEALTH is headquartered in Salt Lake City (UT) and has principal facilities in Glen Allen (VA), Minneapolis (MN), and Wayne (PA).
- **Specialty Services** - FDC offers various services that complement its transaction processing services through the following units:
 - First Image Management Company, acquired with FPMC and based in Norcross (GA), provides document management services, including data acquisition, storage, access, output, and distribution.
 - International Banking Technologies, based in Atlanta, develops in-store bank branches in supermarkets and other retail superstores throughout the U.S.
 - Teleservices, based in Omaha (NE), provides operator and customer support services to a leading long-distance telephone company.
 - Call Interactive, based in Omaha (NE), provides customized 800 telephone interactive voice services.
 - First Data InfoSource, based in Omaha (NE), provides electronic information services to the financial, retail, direct marketing, collections, and insurance industries.

MicroBilt, acquired with FPMC, was repositioned in 1994 as the internal research and development arm of the company. It develops and supports data capture, communications, and information distribution systems to multilocation customers, including financial institutions, retailers, restaurants, and health care and pharmaceutical providers.

A two-year summary of source of revenue by major service area is shown below.

Management

FDC's key executives are listed on the following page.

First Data Corporation Two-Year Source of Revenue Summary (\$ Millions)

Major Service Area	Fiscal Year			
	1995		1994	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Domestic Card Issuer Services	\$800	19%	\$600	20%
Domestic Merchant Processing Services	890	21%	560	18%
International Card Services	190	5%	170	6%
Payment Instruments	825	20%	230	7%
Investment Services	245	6%	210	7%
Health Care Services	405	10%	380	12%
Other Services	530	12%	580	19%
Divested or to be divested (a)	195	5%	300	10%
Other income	105	2%	50	1%
Total	\$4,185	100%	\$3,080	100%

(a) Includes MoneyGram and Health Systems Group.

FDC Key Executives

Name	Title
Henry C. Duques	Chairman and CEO
Lee Adrean	EVP and CFO
Henry T. DeNero	EVP, Western Union Commercial, Integrated Payment Systems, First Data Retail Card Services, International Banking Technologies, First Data Payment Services and CashTax Inc.
Charles T. Fote	EVP, Western Union Consumer, TeleCheck, Call Interactive, Teleservices, MicroBilt and First Data Technologies
Walter M. Hoff	EVP, First Data Card Services Group, which includes First Data Resources, Electronic Funds Services, First Data Issuing Services (Bankcard Program Services, Nationwide Credit), First Data Merchant Services, First Data Oil Services and First Data Solutions
Robert J. Levenson	EVP, First Data Investor Services Group, FIRST HEALTH, First Image Management Company
Edward C. Nafus	EVP, First Data International, which includes FDRLimited (U.K.) and First Data Australia
David P. Bailis	General Counsel

Company Strategy

FDC's business strategy is to generate recurring revenue by developing long-term contractual relationships with clients that have decided to outsource various transaction and information processing services.

- The company's training and development for managers and service representatives are focused on the "life time value" of these client relationships.
- FDC's ongoing objective is to promote client retention and loyalty by providing superior services that consistently exceed client expectations.
- Specifically, FDC focuses on a "service-profit chain" model, whereby FDC's growth and profitability are linked to satisfied and loyal employees who deliver quality services that promote the success of their clients.

FDC continues to pursue revenue growth through five primary sources:

- Internal growth, which consists primarily of increased transaction processing for existing clients
- Sales of ancillary products and enhanced services to existing clients
- The addition of new clients in existing service areas
- Expansion into adjacent markets where FDC can provide similar information processing services to new client groups
- Acquisitions

Financials

FDC's 1995 revenue reached \$4.18 billion, a 36% increase over 1994 revenue of \$3.08 billion.

- Net losses of \$84.2 million include merger, integration, and impairment charges of \$645.7 million (\$539.9 million after tax benefits, or \$2.43 after tax loss per share) associated with the acquisition of FPMC and the write-off of Envoy goodwill.
- Excluding these charges, pretax income for the year was \$813.3 million, up 33% from \$611.3 million in 1994.

A five-year financial summary is shown below.

First Data Corporation Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$4,186.2	\$3,080.5	\$2,658.2	\$2,228.9	\$1,667.8
• Percent change from previous year	36%	17%	18%	34%	N/A
Income from continuing operations before taxes	\$167.6	\$611.3	\$497.1	\$283.8	\$279.3
• Percent change from previous year	(a) (73%)	23%	75%	2%	N/A
Net (loss) income	\$(84.2)	\$360.3	\$296.4	\$153.3	\$170.7
• Percent change from previous year	(123%)	22%	93%	(10%)	N/A
Earnings (loss) per share	\$(0.39)	\$1.71	\$1.41	\$0.75	\$0.91
• Percent change from previous year	(a) (123%)	21%	88%	(18%)	N/A

(a) Includes merger, integration, and impairment charges of \$645.7 million (\$539.9 million after tax benefits, or \$2.43 after tax loss per share).

Growth in existing businesses, principally from new clients and volume increases from existing clients, accounted for approximately half of the revenue increase in 1995. The balance of the growth was from acquisitions, net of the impact of revenue lost from divested businesses.

- Growth in existing businesses was strong in card issuer and merchant processing, as well as payment instrument services, with these service groups experiencing 1995 internal revenue growth exceeding 20%.
- FDC derives revenue in its primary service areas based on a unit price per transaction, on a percentage of dollar volume, or on a combination thereof. The overall growth of FDC is demonstrated by the key indicators shown on the next page.

First Data Corporation Financial Transaction Processing Key Indicators

Item	Fiscal Year	
	1995	1994
Card accounts on file	121 million	92 million
Merchant dollar volume	\$144 billion	\$74 billion
Merchant transactions	4.5 billion	2.8 billion
Payment instrument transactions	365 million	318 million
Mutual fund assets serviced	\$360 billion	\$277 billion

Interim Results

Revenue for the three months ending March 31, 1996 reached \$1.13 billion, a 25% increase over \$903.4 million for the same period a year ago. Net income reached \$105.8 million, up 26% over \$83.9 million for the same period a year ago.

- The results for the prior year include the pooling-of-interests acquisition of FPMC.
- The company's growth in revenue over the prior year's quarter, excluding the effect of acquisitions and divested or to-be-divested businesses, was 20%.
- Expenses for the first quarter of 1996 include a \$16.3 million merger, integration, and impairment charge related to FDC's merger with FPMC, which reduced after-tax earnings by about \$10.0 million. Excluding these expenses, net income rose 38% to \$115.8 million.

- FDC's performance reflects continuing strong growth in the domestic card issuer, merchant processing, and worldwide payment instruments business areas, in part fueled by the overall trend toward electronic commerce. Business volumes in these areas all grew at above-average rates, including growth in cardholder accounts on file of 35%, merchant card transactions processed of 53%, check guarantee and authorization volumes of 24%, and international money transfer transactions of 30%.

Market Financials

FDC's revenue is derived primarily from clients in the banking and finance, retail/merchant, and health care industries.

The company also derives revenue from oil companies, utilities, telecommunications companies, and government entities.

Cross-industry services include money transfers, official checks and money orders, and document management services.

Geographic Markets

Approximately 95% of FDC's 1995 revenue was derived from the U.S. and 5% from international sources.

Acquisitions

FDC's acquisition activity during the past two years is summarized below.

In October 1995, FDC completed the acquisition of First Financial Management Corporation (FFMC) of Atlanta (GA) for approximately 104.5 million shares of FDC common stock. The acquisition was accounted for as a pooling of interests.

- FFMC had approximately 15,000 employees at the time of the acquisition and 1994 revenue of more than \$2 billion.
- The acquisition of FFMC added seven interrelated businesses to FDC, including the following:
 - Western Union, a leading provider of rapid nonbank money transfer services
 - NaBANCO, a leading provider of merchant credit card processing services in the U.S.
 - TeleCheck, a leading provider of check guarantee and verification services worldwide
 - Nationwide Credit, a leading provider of debt collection and accounts receivable management services
 - IBT, the primary provider of in-store banking programs for supermarkets
 - First Image, a leader in document image services
 - FIRST HEALTH, a provider of health care administration services
- FFMC operations constituted approximately one-half of FDC's consolidated revenue for 1995.

In October 1995, prior to its merger with FDC, FFMC acquired Employee Benefit Plans, Inc. of Minneapolis (MN) for \$122.4 million plus assumed stock options. The acquisition was accounted for as a purchase.

- EBP is a health care claims processor and plan administrator and has a life insurance subsidiary that sells insurance products ancillary to its processing services.
- The acquisition expands FIRST HEALTH's claims processing volume and client base.

In June 1995, FDC acquired the merchant processing and point-of-sale unit of Envoy Corporation for approximately \$175 million.

- Due to the subsequent acquisitions of Card Establishment Services (described below) and FFMC's merchant card processing operations, FDC has decided not to pursue its business plans related to Envoy.
- FDC recorded a \$114.7 million impairment charge in 1995.

In March 1995, FDC acquired CESI Holdings, Inc. and its subsidiary Card Establishment Services, Inc. (CES) for approximately \$757 million in cash and stock. The acquisition was accounted for as a purchase.

- CES provided merchant card transaction processing services to more than 125,000 merchant clients.
- The operations of CES have been integrated into FDC's First Data Merchant Services unit.

In March 1995, FDC acquired 440 Financial Group, a provider of processing services to bank-managed mutual funds. The operations of 440 Financial Group have been merged into First Data Investor Services Group.

In November 1994, FPMC acquired Western Union Financial Services, Inc. for \$1.2 billion in cash and assumed obligations. Western Union provides nonbank money transfer and bill payment services in more than 100 countries. The acquisition was accounted for as a purchase.

During 1994, FDC acquired the third-party mutual fund administration business of The Boston Company (TBC), a subsidiary of Mellon Bank, for approximately \$36 million.

- Prior to the purchase, FDC was primarily a transfer agent. This transaction doubled FDC's potential marketplace.
- This business was combined with FDC's mutual fund servicing business (First Data Investor Services Group).

During 1994, FDC acquired Citicorp's official check and money order business. These operations were merged into FDC's Integrated Payment Systems unit.

During 1994, FPMC acquired AT&T's Global Information Solutions Information Imaging Systems, which provided a line of information management services to approximately 850 customers through 13 locations across the U.S.

In July 1994, FPMC acquired GENEX Services, Inc. of Wayne (PA) for approximately \$60.2 million in FPMC common stock. The acquisition was accounted for as a pooling of interests.

- GENEX provides workers' compensation cost-containment services to the insurance industry. The company had more than 1,000 employees at the time of the acquisition and 120 offices.
- The operations were merged into FPMC's FIRST HEALTH unit.

In May 1994, FDC acquired TeleMoney Services from Ceridian Corporation for \$25 million.

- TeleMoney Services provides transaction services, including credit and debit card authorizations.
- The operations of TeleMoney Services have been integrated with CES, Envoy, and NaBANCO into FDC's First Data Merchant Services.

Divestitures

FDC is actively pursuing the divestiture of its MoneyGram operation in 1996 to comply with FDC's agreement with the Federal Trade Commission (FTC) related to the merger with FPMC. As part of the merger, the FTC issued a consent order requiring FDC to sell either MoneyGram or Western Union.

In June 1995, FDC sold its Health Systems Group (HSG) to HBO & Company for approximately \$230 million. HSG, with 1994 revenue of approximately \$121 million, provided processing services and turnkey systems to approximately 500 hospitals, medical group practices, and medical facilities throughout the U.S., Australia, Puerto Rico, the U.K., and other international locations.

In November 1994, FDC completed the sale of its cable services and hotel reservation businesses for an aggregate of \$143 million.

- The Cable Services Group, based in Omaha with approximately 580 employees and annual revenue of \$80 million, provides processing services and turnkey systems to cable television operators.
 - Although this unit was profitable, it did not fit into FDC's long-term plans to focus on the financial sector.
 - The Cable Services Group was sold to CSG management and investment partners Morgan Stanley Group and Trident Capital, L.P.
- Anasazi, Inc., based in Phoenix (AZ), provides processing and software to the retail, lodging, and financial services industries.

In November 1993, FDC completed the sale of its WATS Marketing of America, Inc. subsidiary for \$73 million. WATS Marketing, based in Omaha with approximately 2,000 employees, provides inbound and outbound telemarketing services.

Employees

As of December 31, 1995, FDC had approximately 36,000 employees.

The company currently has approximately 37,000 employees.

Key Products and Services

Domestic Card Issuer Services

FDC's Card Services Group provides processing and related services to financial institutions issuing Visa and MasterCard credit cards, and oil company and retail store credit cards. Financial institution clients include a range of banks, savings and loan associations, and credit unions.

Services are provided throughout the period of each credit/debit card's use, from the moment a card-issuing client accepts an application for a transaction card.

- FDC can monitor the status of a cardholder's application throughout the approval process and can "score" the application using criteria furnished by the client.
- FDC's in-house embossing facility issues cards for new accounts and at renewal dates established by the client for existing card accounts.
- Fraud management services monitor the unauthorized use of cards reported lost or stolen, or which are exceeding credit limits. FDC will coordinate with investigation and enforcement authorities at the card-issuing client's request to assist in preventing unauthorized card use.
- Billing statements are prepared by FDC and mailed directly to cardholders.
- Enhanced services provided by FDC include cardholder database analysis, cardholder behavior scoring, and customized communications to cardholders.
- FDC's Bankcard Program Services provides card-issuing banks with the complete infrastructure for a credit card program, including full back-office support in the areas of application processing, credit support, customer service, and delinquent account processing.
- Revenues for card-issuing services come from fees payable under contracts that primarily depend on the number of transactions processed.

Prior to their merger, FDC (ACB Business Services) and FPMC (Nationwide Credit, Inc.) both provided debt collection and accounts receivable management services.

- FDC has completed the consolidation of ACB's operations into those of Nationwide. The combined operation will be one of the nation's largest collection services, with more than \$4 billion in annualized placement volume.
- Collection services are provided from offices located throughout the U.S., to a variety of clients, including financial institutions (including FDC card-issuing clients), retailers, health care providers, and government agencies
- FDC provides collection services related to certain types of American Express cards.

Domestic Merchant Processing Services

FDC and its joint-venture bank alliances contract directly with merchants to provide processing services related to the merchant's acceptance of cards and checks at the point of sale.

- Services include the authorization, processing, and settlement of credit and debit card transactions, and the verification or guarantee of check transactions.
- Fees for full-service merchant sales and processing are generally based on the dollar volume of transactions processed. Merchant dollar volume was \$144 billion in 1995, compared to \$74 billion in 1994. The acquisition of CES in March 1995 was a major contributing factor to the large volume increase.

In early 1996, FDC began a plan to combine the operations of NaBANCO from FPMC with the CES and Envoy businesses acquired by FDC in 1995.

- The combined entity--First Data Merchant Services--has primary merchant card processing centers in Hagerstown (MD) and Sunrise (FL), with additional volumes of merchant card transactions being processed at FDC's card-issuing processing center in Omaha (NE). These centers support merchant electronic cash registers and dial-up point-of-sale authorization and draft capture terminals.
- First Data Merchant Bank Alliance members include Banc One, Bank of Hawaii, Barnett Banks, Boatmen's Bancshares, Huntington Bancshares, PNC Bank, U.S. Bancorp, Wachovia, NationsBank, and Wells Fargo.
- The USA VALUE EXCHANGE program, formed in 1995, is a partnership owned by credit card issuing and acquiring financial institutions. Member financial institutions can offer customized promotions to consumers. FDC's Card Services Group manages the day-to-day operations of the program and provides related processing services and technology enhancements. Currently, 35 members of this program represent approximately 60 million cardholders.

The TeleCheck system is one of the largest check acceptance services worldwide, operating in the U.S., Canada, Australia, and

New Zealand.

- These services are provided using large consumer databases and proprietary risk management systems offered under the TeleCheck trademark.
- FDC acquired the TeleCheck business and its principal franchisee in 1992 and certain other independent franchises in 1993 and 1994. FDC currently operates virtually the entire TeleCheck system, with independent franchisees remaining in only three states and Canada.
- Fees charged to customers for check guarantee services are generally based on the dollar volume of transactions processed, whereas verification fees are based on the number of transactions.
- TeleCheck also provides collection services in conjunction with its check verification services.

International Card Services

Services provided through FDRL in the U.K. and First Data Australia generally mirror the company's domestic card-issuing and merchant processing services provided to financial institutions.

In addition, FDC operates the largest independent funds transfer network in Australia, providing funds transfer, debit card, and automated teller machine services. The network extends to all of Australia's principal cities, and is used primarily by credit unions, banks, and building societies.

Payment Instruments

FDC provides nonbank money transfer and bill payment services, using an agent network of more than 50,000 domestic and 12,000 international agent locations (excluding MoneyGram agents) to provide payment instrument transaction services to consumers in more than 120 countries.

Western Union Financial Services provides electronic consumer nonbank money transfer services worldwide.

- Western Union has expanded its worldwide agent base to more than 32,000 locations. Agents include supermarkets, check cashers, parcel service stores, foreign currency exchanges, and other retail establishments.
- Customers can also call toll-free to a Western Union service center and charge the transfer and related fee to their credit card account.
- Western Union's Quick Collect service is a bill payment service that allows utility, mortgage, finance, and collection companies to receive payments on past due accounts from consumers via a money transfer initiated at a participating Western Union agent location.
- Ancillary services include money orders and a prepaid disposable phone card.

Integrated Payment Systems (IPS) provides payment instrument transaction processing to financial institutions and other selling agents. In addition, IPS, through a network of selling agents, provides consumer funds transfer services, as well as payment instrument transaction processing, to retail customers.

- A significant but declining percent of these services is generated from official checks, money orders, and money transfers (American Express Money® Orders, American Express Official Checks, and MoneyGram) issued under an agreement with an American Express subsidiary.
- Official Checks serve as an alternative to a bank's own disbursement items such as teller's or cashier's checks.
- IPS also provides cash management services for corporations and financial services institutions. IPS operates as an electronic clearinghouse to collect, concentrate, and disburse financial information. The electronic link provides customers with instant access to their investment funds and enables cash managers to analyze investments and take advantage of financial opportunities.

In 1996, FDC began implementing a plan to combine the business operations of Western Union and IPS. FDC plans to use the well-recognized Western Union name extensively as it migrates from the American Express name for its payment instrument products.

Investment Processing Services

First Data Investor Services Group provides a variety of back-office processing services to the mutual fund industry, including transfer agent services, fund administration and accounting services, print/mail, fulfillment and proxy services, and retirement account recordkeeping and transaction services. FDC markets these services to mutual fund organizations, banks, and other investment organizations desiring to outsource one or more of their back-office processing functions.

The number of mutual fund shareholder accounts serviced by FDC totaled 13.3 million as of December 31, 1995, up from 12.1 million as of December 31, 1994.

Revenues received for fund administration and accounting services primarily consist of annual fees paid in monthly installments based on mutual fund asset levels. Fees for printing, mailing, and proxy solicitations are charged by volume for each job.

Health Care Administrative Services

FIRST HEALTH, based in Salt Lake City (UT), is the largest independent health care administrative services organization in the U.S.. It serves the self-insured corporate and government markets, processing more than \$10 billion in claims each year.

- FIRST HEALTH gives its clients access to an array of services with an advanced health care administration system.
- The unit provides claims administration, utilization review, medical case management, data analysis, provider networks, pharmacy benefit management, worker's compensation, and disability cost management services, as well as related insurance products and outsourcing services to HMOs and other health care providers.

FFMC acquired Employee Benefits Plans, Inc. (EBP) in October 1995, expanding FIRST HEALTH's claims processing volume and client base.

- EBP provides managed health care products and services primarily to small and medium-sized companies throughout the U.S.
- Products and services include claims administration and processing, medical cost management programs, and plan design and consulting services.
- In addition, EBP sells health insurance coverages through its EBPLife Insurance Company subsidiary.

FIRST HEALTH's services were expanded by the addition of GENEX Services, Inc. in July 1994, which provides workers' compensation cost-containment services to the insurance industry and to self-insured corporations throughout the U.S., Canada, and Puerto Rico. Services provided include medical and disability case management, medical bill review, and vocational rehabilitation.

Specialty Services

First Image Management Company, acquired with FFMC, provides data imaging services to more than 13,000 customers.

- First Image has implemented a total-solution approach, known as Integrated Document Services, to provide a range of information management services, including data capture, data imaging, micrographics, electronic database management, and output printing and distribution.
- The majority of First Image's revenues are derived from contracts of two to three years in duration.
- First Image now uses third-party equipment suppliers to furnish its clients with imaging equipment and associated maintenance services, following the implementation in 1994 of a business strategy to de-emphasize its equipment sales and related maintenance.

International Banking Technologies (IBT) provides banking services in supermarkets and supercenter stores, including full-service in-store bank branches, mini-branch banking centers, and check-cashing facilities to financial institutions and food retailers. IBT derives its revenues from fees earned during the design and installation phases and ongoing management of the in-store program between the financial institution and the retailer.

First Data Solutions provides information solutions to the financial, retail, collections, and insurance industries. It provides vast amounts of knowledge to those in the credit, fraud, collections and marketing departments. *First Data InfoSource* is part of First Data Solutions. More than half-a-billion pieces of information on America's consumers and businesses are integrated into a single information source to improve customers' profitability and performance.

TeleServices is the sole external provider of operator and customer support services to a leading long-distance telephone company.

Call Interactive provides customized 800 telephone interactive voice services to gather, process, and disseminate information for client marketing needs. Call Interactive is well-positioned to capitalize on the need for cost-effective alternatives to live operators, the increased acceptance of automated telephone services by consumers and businesses, and the growing consumer demand for access to financial and other data 24 hours a day, 365 days a year.

Marketing and Sales

FDC markets its services through a variety of channels, including direct solicitation and general advertising.

FDC employees are used in the direct solicitation of new clients and the cross-selling of additional FDC services to existing clients.

General advertising is accomplished through industry and trade publications, direct mail, telemarketing, and contact at trade conventions and FDC-sponsored seminars, as well as direct sales.

Western Union maintains a broad-based advertising and marketing program supporting the Western Union brand name and public awareness of Western Union's services.

Alliances

FDC has alliances with certain vendors as follows:

- First Image and Corporate Systems have formed a partnership to provide full-function 800 claim reporting services. The services combine Corporate Systems' CS Teleclaim risk information system with First Image's data acquisition and conversion services.
- FDC and Broadway & Seymour have formed a five-year, multimillion-dollar agreement related to distributed systems for card services. Broadway & Seymour will provide consulting services to First Data and systems integration services to First Data clients in the area of distributed systems for financial institutions to easily and cost effectively maintain, manipulate, and analyze cardholder data directly from the desktops of their employees. FDC is developing the integrated, client/server environment.
- FDC's Card Services Group and Netscape Communications Corporation announced the availability of an Internet payment processing service that will comply with the Secure Electronic Transactions specifications from MasterCard and Visa. The ongoing development of this service is evidence of a commitment by First Data and Netscape to open standards and to providing the necessary infrastructure for electronic commerce payment processing.

Competition

Major competitors by business unit include the following:

- Domestic card issuer processing services--Electronic Data Systems, National Data Corp., Select Payment Systems, and Total System Services.
- Domestic merchant processing services--Electronic Data Systems, Electronic Payment Services, National Data Corp., Select Payment Systems, Total System Services, and VeriFone
- Check acceptance services--National Data Corporation and Telecredit
- Data imaging services--Anacom
- Health care claims processing--EDS, Blue Cross/Blue Shield, Aetna, and Crawford & Co.
- Investment processing services--DST Systems
- Call Interactive--AT&T and West Telemarketing

Assessment

FDC considers its strengths to include:

- A focus on clients. FDC has designed its structure, management, and systems to help clients achieve their goals. With a flat, decentralized organization, FDC believes it can react more quickly, compress response time, and empower colleagues to make decisions that will support client goals. FDC's vision remains: *Every client recommends First Data.*
- A focus on values. All of FDC's activities are based on and guided by the following core values: *Embodying the highest ethical standards, satisfying clients by always exceeding their expectations, treating people with respect and dignity, and creating value for shareholders.*
- A focus on opportunity. FDC, one of the architects of electronic commerce, feels the company has built an industry-leading expertise in this arena over many years, with the opportunities for growth nearly unlimited.
- A focus on growth. FDC requires a high level of performance and caring from colleagues. This has led to the company's creation of a distribution channel that covers 120 countries around the world.

FDC's primary challenges over the coming year include:

- Staying innovative. As an industry leader, FDC's focus must remain on keeping clients well-positioned in the dynamic, changing environment of electronic commerce.

- Maintaining the focus, quickness, energy, and agility of a small company.
- Successfully integrating FDC and FFMC. The new FDC must build a focused employee base that shares the same vision and values and brings the best of both companies to its clients in a seamless way.

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GE Information Services - Europe

New
Search

UPDATED:
02/01/1996

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Company Web Site:
<http://www.ge.com>

Summary Info

President:	Hellene S. Runtagh
Status:	Division
Parent:	General Electric Company
Employees:	2,600 (02/1996)
Revenue:	N/A
Year End	Dec-1996

Key Points

- A major independent processing and network services vendor
- One of 12 businesses of the General Electric Company
- Strong worldwide network infrastructures and data centres
- Strong European presence in network services but little evidence of overall business growth in recent years
- Electronic trading service revenues are replacing shrinking processing service income
- GEIS and Microsoft to provide global EDI capability on the Microsoft Network
- In 1995, GEIS started to offer public Internet solutions.

Company Description

GE Information Services (GEIS) offers a portfolio of network-based information services, including electronic trading (EDI, electronic messaging and network management), custom industry applications (banking, financial services, retail and transport, computer hardware and software), cross-industry applications (channel management, sales and marketing communications systems), network and processing services, systems development and consulting to more than 14,000 clients worldwide. Its services are supported by a team of information specialists in 42 countries.

GEIS was formed in 1979 as General Electric Information Services Company (GEISCO) to consolidate General Electric Company's (GE) MARK II worldwide interactive and remote batch-processing services, introduced in 1965 as MARK I, the first interactive processing service commercially available in the U.S. The organisation unified the U.S. operations handled by GE's Information Services Division with European and Australian operations run by Honeywell, which retained a 16% interest in GEISCO until 1972, when GE bought Honeywell's interest.

On January 1, 1984, GEISCO again became an international component of GE and its legal name became GE Information Services. For financial reports it is treated as part of Technical Products and Services, which includes GE Medical Systems.

INPUT estimates that GEIS's 1994 European revenue was approximately \$260 million.

In 1989, Hellene S Runtagh was appointed President and Chief Information Officer of Corporate Information Technology.

Operations and Structures

GEIS's European operations, with headquarters in Milan, are divided by region:

Northern headquarters in the U.K.

Western headquarters in Paris, responsible for Belgium, Luxembourg, France and Monaco.

Central headquarters in Cologne, responsible for Germany, Austria, Switzerland, Denmark, Sweden, Norway and Finland.

Southern headquarters are in Milan, responsible for Italy, Spain, Portugal, Greece and Saudi Arabia.

Many of the offices are established through affiliates, e.g., in Finland, through Nokia, and in Spain, Teleinformatica. However, the offices in Italy, the U.K., France and Germany are subsidiaries.

Each country office provides the following functions: sales and marketing, customer services and technical development and support. Offices are responsible for revenue and account management. It is the client's point of contact, and is responsible for instructing the offices of other countries on their role in servicing clients' needs. The company uses its worldwide organisation for applications and support requirements.

Company Strategy

Company Direction

GEIS objectives are:

- To provide a comprehensive range of services, to create and support information systems by deploying the appropriate telecommunications, processing and software technologies and thereby:
- Secure long-term, evolving service business through a close relationship with the company.

Its overall strategy is to provide highly customised systems through the exploitation of the base enabling technologies such as EDI and messaging services. The company aims to offer a "complete service deployment function" with the use of third-party services where necessary.

An entry-level approach is taken through integrated messaging services i.e., bulletin boards, databases, EDI, X.400/X.500 and business messaging services. The company has taken the electronic trading approach through the integrated sales of these services, rather than simple service sales.

At a higher level, the approach is to focus on functional applications, and specific targeted vertical industry sectors.

The company is concentrating on a change of focus from processing and other network services to consultancy. Currently, however, INPUT estimates that only 4% of the company's revenue is generated through professional services.

Additionally, the target markets to be addressed

- Transport
- Retail

- Banking and Finance.

GEIS is trying to cultivate a consultative approach to clients with the ultimate goal of being recognised as a major systems integration vendor. One aim to facilitate this is to develop and strengthen partnership relationships. Partnerships are being nurtured through the establishment of joint development projects as well as service provider/client relationships.

Financials

As a division of GE, GEIS does not report separately.

A five year financial summary for the GE Group is shown in Exhibit 1 and a summary for GE Technical Products and Services, which includes GEIS, is shown in Exhibit 2.

Exhibit 1

(GE Consolidated Group Revenues — Worldwide) Five-Year Financial Summary FYE 31-12 (\$millions)

	1990	1991	1992	1993	1994
Revenues	49,696	51,283	53,051	55,701	60,109
Annual Growth Rate (%)		3%	5%	5%	8%
Operating Profit	6,616	6,712	6,695	6,695	8,841

Source: GE Company

Exhibit 2

(GE Technical Products and Services — Worldwide) Five-Year Financial Summary FYE 31-12 (\$millions)

	1990	1991	1992	1993	1994
Revenues	4,259	4,686	4,674	4,174	4,285
Annual Growth Rate (%)	5	10	0	(11)	3
Operating Profit	538	693	912	706	787
Annual Growth Rate (%)	0	29	32	(23)	11

Source: GE Company

Market Analysis

Exhibit 3 shows GEIS' revenues by delivery mode, while software and services revenues by industry sector are shown in Exhibit 4.

Exhibit 3

GEIS, 1994 Market Analysis by INPUT Delivery Mode, European Information Services (\$ millions)

Delivery Mode	Revenue*	(%)
Professional Services	10	4
Network Services	160	62
Processing Services	30	31
Total Software and Services	250	96
Equipment/Other Revenues	10	4
Total European Revenues	260	100

*Percentages are rounded
Source: INPUT Estimates*

Exhibit 4

**GEIS, 1994 Market Analysis
by Industry Sector, European
Software and Services (\$ millions)**

Industry Sector	Revenues*	(%)
Discrete Manufacturing	50	520
Process Manufacturing	12	5
Transport	20	8
Utilities	2	1
Telecommunications		2
Retail Distribution	12	5
Wholesale Distribution	25	10
Banking and Finance	50	20
Insurance	18	7
Health Care	3	7
Local Government	3	1
National Government		10
Business Services	25	10
Total Software and Service	250	100

*Percentages are rounded
Source: INPUT Estimates*

Geographic Markets

GEIS has about 50 US offices and offices in 42 countries, with support and access provided by distributors, affiliates, or private data networks in even more countries.

Exhibit 4 provides GEIS' revenues by European Country.

Exhibit 4

**GEIS
European Revenues by
Country, 1994, \$ Millions**

Country	Revenue in \$ Millions	Share
France	40	15%
Germany	20	8%
UK	75	29%
Italy	30	12%
Netherlands	5	2%
Belgium/Luxemburg.	5	2%
Spain	50	19%
Switzerland	5	2%
Austria	2	1%
Sweden	7	3%
Denmark	4	2%
Norway	5	2%
Finland	2	1%
Ireland	2	1%
Portugal	7	3%
Eastern Europe	1	<1%
Total Information Services		100%

*Percentages are rounded
Source: INPUT Estimates*

Acquisitions / Divestitures

In January 1994, GEIS acquired ICL's entire interest in International Network Services, Ltd. (INS). This acquisition reflects GEIS' commitment to growth in the electronic trading business worldwide.

Employees

In 1994, GEIS had 2,600 employees worldwide (1993: 2,500). INPUT estimates its European headcount at approximately 900, bringing GEIS' European revenues per employee to \$0.289 million.

Key Products and Services

Delivery Systems

GEIS has three delivery systems for its processing/network services as follows:

- The MARK III™ Service, with over 8,000 clients worldwide, around half of whom operate in Europe, consists of the following major elements: (i) Foreground Service, the primary offering, which enables interactive remote processing on Honeywell/NEC computers and (ii) two

libraries containing over 2,000 software products, developed by GEIS or licensed from major software vendors and supported by GEIS

- The MARK 3000™ Service is an IBM-compatible companion service to the Mark III. Remote batch and interactive processing on large-scale IBM computers are available and standard software for general business, engineering, simulation and statistical analysis applications
- The MARK 9000SM Service, is a bundled offering of IBM MVS/XA operating environment processing, storage and IBM-compatible network services. It can be used for departmental processing: development, prototyping and conversions; in distributed configurations for store-and-forward processing and network switching/ management; and as a component in custom systems for vertical applications, disaster recovery and remote facilities management.

The GEIS Network is a teleprocessing system based on a proprietary packet-switching protocol. It permits organisations to transmit data to dispersed terminals and computers around the world, with 600 access points in the U.S. and direct access in 42 other countries.

It supports asynchronous, IBM-compatible synchronous (including 3270 BSC, 3270 SNA/SDLC, 2780/3780 BSC, 3770 SNA, LU6.2), X25 and TCP/IP protocols. As well as supporting SNI interconnections among SNA networks, it offers a variety of error-correcting protocols, such as MNP and XMODEM, and it provides 3270 emulation via NET*CONNECT 3270 and Simrue Simware's 3278, SIMPC and MAC 3270.

Applications

GEIS services are categorised into the following application areas:

- Electronic Commerce Services, i.e.,

Electronic Data Interchange (EDI) Business Communications Products and Services

- Financial Information Services
- Value-Added Network Services
- Management Network Services
- On-Line consumer Information Services.

Electronic Commerce 1-EDI

EDI products and services support processing and transmission between trading partners of standardised business data in a variety of public and private formats using different protocols and access methods. GEIS's EDI network and services connect almost 13,000 trading partners worldwide; the total grows by 40% annually.

GEIS also supports several private and industry association networks, including Catspeed (Caterpillar Tractor Company's private EDI implementation), Haggar Apparel Company's HOP (Haggar Order Processing), LeviLink (Levi-Strauss), PetroExx (the Petroleum Data Exchange System), and The Poland Transnet (operated by the Motor Equipment Manufacturers Association, Englewood Cliffs, NJ).

Other EDI-related activities include the following:

- The acquisition in 1993 of INS, the U.K.-based EDI operator. GEIS had earlier shared ownership with ICL
- Its selection by CEFIC, the European Council of Chemical Manufacturers' Federation, as the single clearing-house to provide EDI services to the CEFEC EDI trial for the European

Chemical Industry.

GEIS also provides EDI implementation services, including training, the organisation of trading partner conferences, technical support, the development of specialised test procedures, customising documentation, and project management.

In addition, it has a growing business in custom programming and systems integration arising out of the implementation of electronic commerce as customers, especially in financial services, require pre- and post-processing systems related to EDI and its integration into their other systems.

Electronic Commerce 2- Business communications

GEIS offers a family of products for office communications and automation:

- The BusinessTalk™ System 2000 is an intelligent communications capability designed to process, distribute and retrieve information. It combines the functions of textual databases with a key-word search, bulletin boards, electronic mail and graphics
- The QUIK-COMM™ System is a global electronic mailbox service. The system accommodates eight languages in addition to English.

Financial Information Services

GE Financial Information Services, part of GEIS, supports international network applications for banking and financial institutions. Applications include:

- An on-line order routing service for the futures and options industry
- An automated money transfer service for corporate treasurers
- An automated balance and transaction reporting service used by multinationals to manage global cash across time zones and currencies
- An exposure management package to monitor foreign exchange, money markets and other areas such as securities, commodities and precious metals
- Settlement, instruction and reporting systems for international securities settlement instructions
- Financial consolidation and reporting software to consolidate financial information multi-divisional companies.

Computer Hardware and Software

The GEIS network uses over 6,000 processing and communications computers. Over 400 of these are BULL PMSDs used to handle communications. Large-scale IBM, BULL and NEC processors are concentrated in "supercentres" in Rockville, Cleveland and Amstelveen, the Netherlands.

GEIS's teleprocessing network handles over 400,000 user sessions per day, transmitting over 2,000 million characters of data in and out of the system per hour. It uses VSAT satellite links, microwave links, 25 transoceanic undersea cables, and 350,000 miles of land-lines. It links to telex, fax and proprietary E-mail systems. GEIS has X.400 service interconnection agreements in many countries.

Managed Network Services

Managed Network Services (MNS) is a specialised teleprocessing service that provides client organisations with custom-tailored network and session management.

MNS is a single, integrated service that provides the following:

- Proposals for networking and client support, designed for specific client requirements, prepared by GEIS consultants
- Network and session management using MNS Session Manager, a network management teleprocessing application
- Support in managing the global integration of information by co-ordinating with third-party vendors such as postal telephone and telegraph (PTT) authorities and by offering the client a single worldwide contract
- Worldwide support 24 hours a day, seven days a week.

About 50% of clients are Europe-based companies.

On-line Customer Information Services

GETM (GE Network for Information Exchange) is an electronic consumer information service (available in Austria, Germany and Switzerland) for minicomputer end-users. It permits access to a variety of series, including news and information, financial, travel, shopping, computer games and references, electronic mail and real-time conferences.

Other network-related announcements include the following:

- In June 1989, GEIS signed a joint venture agreement with STET, the telecommunications and electronics holding company of the Italian industrial conglomerate IRI
- Under the agreement, STET acquired a 40% interest in GEIS Italy, GEIS's wholly owned subsidiary in Italy. The company will be operated as a joint venture of STET and GEIS to provide value-added network services in Italy
- Professional services provided by GEIS systems development and consulting, training and documentation services.

Alliances

In October 1994, INS division announced a major partnership with Multisoft and Pegasus, who market the UK's leading packaged accounting systems, in order to provide an easier route for small and medium-sized businesses to adopt electronic trading.

In October 1995, GEIS joined Hewlett-Packard's International Partner Programme to provide electronic data interchange services to complement HP's product offering worldwide. GEIS will provide Enterprise System, UNIX-based server software for integrating and managing electronic trading information, and EDI Application Integrator for UNIX, a comprehensive mapping and translation product, to HP, enabling GE to offer a total solution to its customers.

Competitors

GEIS' primary competitors include AT&T Istel, BT Tymnet, IBM, Infonet, Sprint International and Reuters. In EDI and electronic mail, it also competes with Sterling Software (Ordernet), MCI, AT&T Easylink and various PTT-provided services.

INPUT Assessment

Strengths and Weaknesses

GEIS's main strengths can be summarised as follows:

- Worldwide presence
- Strong parent company
- Networking expertise
- Industry expertise (i.e., banking and finance)
- Large customer base.

The greatest strength of GEIS as an international data carrier is its strong global presence. Such a presence is becoming critical to success in the international network services market. Customers who must manage multinational networks increasingly demand support in, and not just access to and from, the countries in which they maintain computer installations.

Another strength of GEIS is its ownership. It is a component of and has the financial backing of General Electric Company (GE). GE is one of the world's largest corporations, with revenues in excess of \$60 billion. Apart from being a major client of the company's services, GE has also been operational in GEIS's expansion into Eastern Europe. The network now has connection into Leipzig, Dresden and Berlin, with an access mode in Prague.

GEIS has two supercentre teleprocessing centres in the U.S., complemented by a supercentre in Amsterdam. This base helps make the company one of the dominant forces in the managed network services market and a major European vendor of network applications for banking and finance.

GEIS has particular expertise in providing services to the banking and finance sectors. It offers a number of products and services through its Financial Information Services unit. Set up in 1989, GE Financial Information Services supports international network applications. Product offerings range from a system for money transfer to a settlement instruction and reporting system.

The company has an impressive client base with over 14,000 clients worldwide. The majority of these clients are multinational companies and organisations in the banking and finance, retail, transport and information provision sectors.

GEIS is very well established internationally, with approximately 50% of its revenue derived from outside the U.S. The company plans to continue to favor growth organically rather than through acquisition.

The main challenge for GEIS is to increase skills and resources sufficiently to meet its goal of becoming a total solutions provider.

One way of enhancing its service range and of improving its vertical expertise would be to acquire a few niche companies.

Conclusions

GEIS integrates its networking, processing and software application skills to deliver customised information solutions for customers worldwide. It operates the world's largest commercially available teleprocessing network and is independent of computer manufacturers.

GE Information Systems is a major European vendor of network applications, with particular emphasis on banking and finance. Some applications exist as "core" products to service areas of specific client interest. Other applications are developed for clients on a custom-built basis.

The company aims to control the distribution of software within an organisation, transfer data between micros and mainframes, and most significantly, to do this on a global network backbone. GEIS customers can use GEIS's own network-based BUIL/NEC computing service, as well as an IBM-

compatible network-based service operating on IBM 3090, 3081 and 4381 platforms and running under MVS/XA and VM/SP HPO operating systems.

The company is concentrating on functional processes as it accepts that it cannot add value in all market sectors. Functional areas include customer support, sales and marketing, and finance. These neutral functions are designed to apply to most organisations, irrespective of their industry sectors, to enable the company to enter markets where it has no specific industry expertise and therefore to broaden its customer base.

The concentration on vertical industries is to facilitate the provision of complete service for these particular industries, rather than attempting to be in a position to offer everything in every industry sector.

Although currently 30% of the company's revenue is generated through banking and finance, the majority of this revenue is estimated to derive from processing services rather than network applications services. The company does, however, have the opportunity to leverage business from these processing services customers. As for transport and retail, however, INPUT estimates that in total GEIS generates little revenue through these customers. The company does serve these industries through INS, which has a very strong customer base, particularly in the U.K. retail market, through its EDI service.

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Grant Thornton LLP



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05/15/1998

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Summary Info

CEO:	Bob Nason
Status:	Partnership
Employees:	17,000 (04/1998)
Revenue:	\$ 1,400.0 mil
Year End	Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	U.S.

No main company profile is available for this company.

Click on one of the Capability Profile links
to view this company's capability profile in the market listed.
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Harbinger Corporation



UPDATED:
12/01/1996

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U.S.

Phone: (404) 467-3000 **Fax:** (404) 841-4399

Company Web Site:
<http://www.harbinger.com>

Summary Info

Chairman:	C. Tycho Howle
CEO:	David T. Leach
Status:	Public
Employees:	680 (12/1997)
Revenue:	\$ 124.7 mil
Year End	Dec-1997

Key Points

- Harbinger is a worldwide supplier of electronic commerce (EC) software and services.
- Harbinger claims to be one of the largest EC value-added network (VAN) providers in the world, with more than 21,000 billable subscribers and more than 38,000 active mailboxes on its global networks.
- In October 1996, Harbinger announced plans to acquire the remaining 30% interest in Harbinger NET Services, a venture formed in 1994 to develop Internet EDI products and services for the business market.
- In August 1996, Harbinger expanded its EC capabilities in the federal, state, and local government markets with the acquisition of Texas-based Comtech Management Systems.
- In April 1996, Harbinger expanded its presence in the European market with the acquisition of two EC software and services providers--NTEX Holding B.V. of the Netherlands and INOVIS GmbH of Germany.
- In July 1995, Harbinger acquired System Software Associates' (SSA's) EDI products for the AS/400 as well as SSA's EDI development organization. SSA has been granted rights to sell Harbinger's complete line of products and services worldwide, increasing Harbinger's ability to penetrate markets outside the U.S.

Company Description

Harbinger's EC products and services facilitate electronic data interchange (EDI) by businesses and financial institutions by electronically transmitting and receiving routine business information and documents in a standard format.

- The Harbinger VAN serves as an electronic communications link for computer systems by receiving, storing, and forwarding electronically transmitted business documents and data for retransmission in a form that can be received and interpreted by the computer of another commercial business.
- Harbinger IVAS (Internet Value-Added Server) is an enhanced Internet link between trading partners that provides the features of the Harbinger VAN together with open Internet connectivity. Intermediation, archival, standard, compliance monitoring, support, and trusted third-party services are provided.
- The electronic link to Harbinger's computer communications network is supported through its EC/EDI software products which are available for a range of platforms, including DOS, Windows 3.1, Windows 95, Windows NT, UNIX, IBM AS/400 midrange, and IBM MVS environments.
- In addition to VAN transaction processing and software products, Harbinger also provides software programming and customization services, customer support and training, and implementation and consulting services.

In August 1995, Harbinger completed an initial public offering of approximately 1.68 million shares of its common stock, generating net proceeds to the company of \$18.3 million.

Organization and Structure

Harbinger's key executives are summarized below:

Harbinger Key Executives

Name	Title
C. Tycho Howle	Chairman & CEO
David T. Leach	President & COO

James C. Davis	President & GM
James Travers	President, Harbinger Enterprise Solutions
Theodore E. Clochon	VP and GM, European Operations
George S. Hart	SVP, Licensee Relationships
Dave Meeker	VP, Sales
Joel G. Katz	VP, Finance
Tom Lenahan	VP, Prod. Mgmt. and Corp. Communications
Steven D. Marberger	VP, Application Dev. and Consulting
Bob Geiger	VP, Network Solutions
Tod Lerner	VP, Network Operations
Richard M. Elwyn	VP, Network Development
David R. Williams	Senior Director, Customer Services
Michael Lieb	Dir., Human Resources and Administration

Harbinger is headquartered in Atlanta (GA) and has offices in Richardson (TX), Sacramento (CA), Rotterdam (The Netherlands), Karlsruhe (Germany), and London (England).

Harbinger is organized into the following units:

- The Enterprise Solutions Division, based in Richardson (TX) with 65 employees, provides AS/400, UNIX, NT, and MVS electronic commerce solutions to large corporations.
- NTEX datacommunications B.V., based in The Netherlands with 40 employees, is a wholly owned subsidiary formed in 1996 with the acquisition of NTEX Holding B.V. This unit provides EC software and services in the Benelux market and acts as the European headquarters for Harbinger.
- Harbinger/INOVIS GmbH, based in Germany, is a wholly owned subsidiary with 30 employees that was acquired from INOVIS GmbH in 1996. This unit provides EC software and services in the German and Austrian markets.
- Harbinger Network and Mass Deployment, based in Atlanta (GA), provides value-added network, Internet value-added server, desktop, and Internet-based EDI and EC solutions.

Company Strategy

Harbinger's objective is to be a leading worldwide provider of EC products and services to businesses of all sizes with a focus on solidifying its recurring revenue base by increasing the number of subscribers to its network. The company's strategy to achieve this objective includes the following key elements:

- Offering a range of EC products and services, enabling trading partners to obtain the products and services necessary to conduct EC transactions within their trading communities
- Promoting its products and services to identified trading communities and hub companies within various industries, including the high tech, grocery, manufacturing, utilities, health care, banking, and petroleum industries
- Offering and further developing and enhancing numerous integrated software products operating on a range of computing platforms
- Providing superior and extensive customer support services
- Providing products and services to facilitate EC using the Internet
- Forming strategic alliances with leading telecommunications companies, software application developers, and computer system suppliers
- Providing EC and EDI products and services to markets outside the U.S.

Financials

Harbinger's 1995 revenue reached \$23.1 million, up 69% over 1994 revenue of \$13.7 million. Net income exceeded \$1 million, compared to net losses of \$2.1 million for 1994. A five-year financial summary appears on the following page.

Results for 1994 include \$4.3 million in charges for purchased in-process product development associated with the acquisition of Texas Instruments' EDI solutions and write-offs of software development costs for certain Windows-based PC products. Excluding these charges, net income for 1994 would have been approximately \$867,000.

Harbinger Corporation Five-Year Financial Summary (\$ Thousands, except per share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$23,117	\$13,652	\$10,536	\$6,717	\$5,505
• Percent change from previous year	69%	30%	57%	22%	48%
Income (loss) before taxes	\$1,934	\$(2,963)	\$998	\$(153)	\$143
• Percent change from previous year	165%	(a) (397%)	752%	(207%)	109%
Net income (loss)	\$1,048	\$(2,111)	\$3,242	\$(353)	\$46
• Percent change from previous year	150%	(165%)	*	(884%)	103%
Earnings (loss) per share	\$0.12	\$(0.31)	\$0.48	\$(0.08)	\$(0.03)
• Percent change from previous year	139%	(165%)	700%	(167%)	(92%)

* Percent change exceeds 1,000%.

(a) Includes \$4.3 million in charges for purchased in-process product development associated with the acquisition of Texas Instruments' EDI solutions and write-offs of software development costs for certain Windows-based PC products.

Revenue Analysis by Product/Service

INPUT estimates approximately 41% of Harbinger's 1995 revenue was derived from value-added network services 18% from software maintenance and implementation, 7% from consulting and education professional services, 29% from software license fees, and 5% from other.

A three-year summary of source of revenue, as provided by Harbinger, follows:

Harbinger Corporation Three-Year Source of Revenue Summary (\$ Millions)

Product/Service	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Services (a)	\$16.4	71%	\$10.7	78%	\$6.9	55%
Software licenses	6.7	29%	3.0	22%	3.6	35%
Total	\$23.1	100%	\$13.7	100%	\$10.5	100%

(a) Includes VAN services, software maintenance and implementation, and consulting and education.

Harbinger management attributes 1995 results to the following:

- Service revenue increased 54% to \$16.4 million due to an increase in the number of subscribers using Harbinger's VAN, as well as increases in the average volume of transmissions by subscribers. Revenue from software maintenance and implementation also increased, reflecting both an increase in the number of customers and a modification of the pricing structure for these services.
- Software revenue increased 126% during 1995 due to \$2 million in software sales attributed to products acquired from Texas Instruments in 1994, \$1.5 million in royalties for software products sold through the SSA channel, and software sold in connection with several new hub programs.

Interim Results

Revenue for the nine months ending September 30, 1996 reached \$28.4 million, a 78% increase over \$15.9 million for the same period in 1995.

- Services revenue increased 67% to nearly \$19.5 million and software revenue increased 109% to more than \$8.9 million.
- Net losses of \$8.7 million include \$8.35 million in charges for purchased in-process product development associated with the acquisitions of NTEX and INOVIS.

Market Financials

Harbinger's 1995 revenue was derived approximately as follows:

Manufacturing	31%
Petroleum	16%
Utilities	14%
Health care	10%
High tech	10%
Banking	8%
Grocery	5%
Retail	2%
Transportation	1%
Other	3%
	100%

Geographic Markets

Approximately 99% of Harbinger's 1995 revenue was derived from the U.S. and 1% from international sources.

Acquisitions

In October 1996, Harbinger announced its intent to purchase the remaining 30% interest in Harbinger NET Services, LLC (HNS), currently a 70% subsidiary, from BellSouth Telecommunications, Inc. and other minority shareholders for approximately \$7.2 million in cash and Harbinger common stock.

- HNS, with 60 employees, was formed in 1994 to develop Internet EDI products and services for the business market. It was funded with approximately \$12 million in June 1995 (\$9 million from Harbinger and \$3 million from BellSouth).
- HNS introduced its first product this year, TrustedLink INP, a web site development tool for the nontechnical user.
- HNS has also developed, and is currently in beta, with several other Internet EC products: TrustedLink Guardian is a tool for moving EDI documents securely over the Internet (released by Harbinger in December 1996); Harbinger Express is in pilot as of December 1996 and enables companies to execute EDI transactions using only a Web browser; and the Harbinger IVAS platform performs as a message switch, gateway, and services engine for secure Internet-based electronic commerce and EDI.
- The consolidation of HNS with Harbinger allows the sales force and partners in the U.S. and around the world to more easily license a complete portfolio of EC products. HNS can leverage off Harbinger's existing infrastructure and sales channels, lowering its administrative and marketing costs.

In August 1996, Harbinger acquired Comtech Management Systems, Inc. of Amarillo (TX), a provider of government procurement software and services. The terms of the acquisition were not disclosed.

- Comtech, founded in 1988, provides bidding databases to Procurement Technology Assistance Centers (PTACs), large corporations, and state and local governments. Solutions include profiling software that allows government suppliers to respond solely to those bids that match their specific profile.
- In addition, Comtech's FAX-2-EDI service allows small businesses to convert faxed bids to EDI documents using Harbinger's TrustedLink Commerce translation software.
- Comtech is also releasing a Windows version of ProntoO, a product that enables PTACs to sort and distribute the bidding opportunities to business clients and report statistics on the bids received.
- This acquisition is part of Harbinger's strategy to expand its EC software and solutions for the federal, state, and local

government market.

- Comtech had seven employees at the time of the acquisition. It now operates as a subsidiary of Harbinger.

In April 1996, Harbinger acquired INOVIS GmbH & Co., a Karlsruhe (Germany)-based provider of EC software and services for the German and Australian markets, for approximately \$4.5 million in cash and stock plus contingent payments based on future performance.

- INOVIS, with approximately 30 employees at the time of the acquisition, develops custom EC applications for large trading communities and is a leading supplier of software and services for Internet connectivity, EDI, X.400, and e-mail. INOVIS operates a value-added clearing center serving more than 800 businesses throughout Germany and Australia.
- INOVIS intends to expand its EC capabilities by integrating INOVIS technology into its product line. New applications from INOVIS include its Internet and CD ROM on-line ordering system and Electronic Catalogue.
- Harbinger also intends to build upon INOVIS' presence in the German and Austrian markets by continuing to operate the INOVIS value-added network and provide local support for German corporate customers.

In April 1996, Harbinger acquired NTEX Holding B.V., a Rotterdam (The Netherlands)-based EC provider, for approximately \$4.6 million in cash and stock, plus contingent payments based on future performance.

- NTEX, with approximately 40 employees at the time of the acquisition, provides software and services for Internet connectivity, EDI, X.400, and e-mail. The company has more than 10,000 users of its client software for these functions.
- NTEX also offers Web Hosting Application Manager (WHAM!), a technology for developing and managing applications residing on the World Wide Web.
- NTEX operates a value-added clearing center with more than 400 billable subscribers representing more than 6,000 businesses with active mailboxes throughout The Netherlands.
- NTEX also develops wide-area client/server communications products and offers a range of application development services.

In July 1995, Harbinger and SSA entered into an asset purchase and strategic alliance agreement.

- Harbinger acquired SSA's EDI products for IBM AS/400 platforms, as well as SSA's EDI development organization in The Netherlands, for 550,000 shares of Harbinger common stock (valued at about \$4.67 million).
- Under the terms of the agreement, Harbinger has licensed to SSA its AS/400, UNIX, and PC-based EDI software and related tools and utilities and SSA may remarket this Harbinger software to licensees of SSA's Business Planning and Control System (BPCS).
- SSA will pay royalties to Harbinger through December 2000 based on software and services revenues that SSA derives from the sale of Harbinger products, including minimum royalties of \$1.4 million in 1995 and \$5.7 million in 1996.

In December 1994, Harbinger acquired the EDI business unit of Texas Instruments.

- The acquisition brought the company EDI translation software solutions for IBM MVS, UNIX, and Windows platforms. It also made Harbinger the first EC provider to offer fully scalable software, allowing customers to migrate to different platforms as their needs change.
- The acquired business now operates as Harbinger Enterprise Solutions.

Employees

As of December 31, 1995, Harbinger had approximately 210 full-time employees.

As of December 1996, the company had approximately 430 full-time employees.

Key Products and Services

Services

Harbinger provides a range of services to businesses engaged in EC, including network services, trading partner and EC implementation services, programming services, and customer training and support.

VAN Services- Harbinger operates a value-added network that provides the central point for document and data receipt, translation, and transmission, and serves as a communication link between the members of a trading community.

- Harbinger offers trading partners a range of network services, including batch communication of purchase orders, invoices and shipping confirmations, and e-mail between trading partners.
- Additional network services enable a trading partner to transmit into the network a large number of electronic documents intended for various destinations through a single toll-free telephone line, and to acknowledge and reconcile document transmission and receipt.
- Harbinger provides its network customers with monthly statistical information regarding network usage.
- The Harbinger network operates on a Tandem Himalaya system in Atlanta. The network supports multiple communications protocols, including SNA, X.25, Asynch, FTP, SMTP, and Bisynch, enabling it to communicate data with most computer systems at transmission speeds ranging from up to 128 KB switched and 1.5 MB dedicated. The network also supports many standards for documents and data content and format, including ANSI X12, EDIFACT, BAI, and NACHA.
- Charges for transactions placed through the Harbinger network are based on the number of messages transmitted and the number of characters in each transaction. Pricing varies during peak and off-peak hours.

Harbinger IVAS (Internet value-added server) --This enhanced Internet link between trading partners provides the features of the Harbinger VAN together with open Internet connectivity. Intermediation, archival, standards compliance monitoring, support, and trusted third-party services are provided.

Harbinger Express --Announced in December 1996, Harbinger Express is an Internet-based service that enables companies to use a Web browser (Netscape Navigator or Microsoft Internet Explorer) to exchange business documents with trading partners. The service automatically translates the documents between HTML and standard EDI formats.

Trading Partner Implementation and Certification --Harbinger offers several programs to assist its hub customers in maximizing the number of their trading partners using EDI.

- These programs are designed to communicate the advantages of EDI and EC to all potential trading partners of a major hub, regardless of size.
- Programs include information seminars, support materials, and trading partner certification (installing, testing, and confirming ability to transmit with hub companies).

Electronic Commerce Implementation --To assist in implementing electronic commerce, Harbinger has developed custom software templates, known as Trading Partner Packs, to conform with guidelines and parameters identified by the major purchasers and suppliers within various trading communities. Harbinger maintains a library of more than 1,000 Trading Partner Packs.

Consulting and Programming Services --Harbinger consults with trading partners to create functional specifications for developing software programs necessary to integrate EDI with the customer's other software applications. Harbinger also provides software programming services to trading partners to create the application interface programs necessary to translate data into and out of EDI standards.

Customer Training --Harbinger offers training classes for various stages of EDI implementation by trading partners.

- These classes provide instruction on the use of Harbinger software products operating alone or with other software operated by a trading partner.
- Classes are conducted in Atlanta (GA) and other cities in the U.S.

Customer Support Services --Harbinger provides customer service and support to trading partners on the use and operation of its software products and the conduct of business with trading partners using EC.

- Toll-free customer telephone support is available five days a week from 8 a.m. to 8 p.m. EST for the Network and Mass Deployment group and seven days a week, 24 hours a day for the Harbinger Enterprise division.
- Network transmission support is available seven days a week, 24 hours a day.

Third Party Ticket System (TPTS) --TPTS is a service that permits tank owners, pipeline companies, and affiliated parties in the petroleum industry to track ownership of petroleum through a pipeline.

Products

Harbinger's current software products are summarized in the exhibit below.

Exhibit

Harbinger Software Products

Product Name	Function	Computer Platform
TrustedLink Commerce	EDI translation software for "spokes" (communications, document management, and forms creation, plus import/export of data from software applications)	DOS, Windows
TrustedLink Enterprise	EDI translation software for hubs (communications, document management, plus import/export of data from software applications)	UNIX IBM AS/400 IBM MVS Windows NT
EDImap	Mapping tool, integrates EDI software with specific applications	DOS
TrustedLink Banker	Small business cash management activities, EFT, wire transfers, direct deposit, and debits	DOS, Windows
TrustedLink Distributor for Petroleum	EDI communications, document management, and forms creation specific to the petroleum industry	Windows
TrustedLink Shipper	Integrated EDI and barcode solution	Windows
TrustedLink INP	Combines Web site builder, browser, Internet access, and secure Web hosting	Windows 95
TrustedLink Guardian	Manages secure EDI over the Internet	Windows 95/NT UNIX

In March 1996, Harbinger introduced its TrustedLink™ family of products, encompassing both the introduction of a new generation of EC solutions as well as a renaming of the company's existing line of InTouch® software.

- Harbinger's products are available on DOS, Windows, Windows 95, Windows NT, UNIX, IBM AS/400, and IBM MVS computing environments.
- Harbinger markets its software products under licensing agreements that provide one-time license fee charges ranging from \$460 to \$2,740 for DOS and Windows products; \$10,000+ for Windows NT products; \$70,000 to \$90,000 for UNIX products; \$35,000 to \$50,000 for AS/400 products; and up to \$180,000 for IBM MVS products. License fees are determined based on the number of specified users.
- Harbinger Express can be set up for \$495 plus a \$29.95 monthly fee for up to 15 documents.
- TrustedLink INP starts at \$195 for Web site building software plus a \$50/month site hosting fee.

Clients

Harbinger's customers include a range of hub companies and their trading partners in several markets targeted by the company. Hub customers (grouped by industry) include the following:

- **Banking** --Bank of America, Barnett Banks, Deposit Guaranty, Firststar, First of America, Premier Bank, Stillwater National Bank, Westamerica
- **High tech** --Apple, Compaq Computer, Digital Equipment, Hewlett-Packard, Hitachi, Honeywell, Lucent Technologies, Siemens, Texas Instruments, Westinghouse
- **Grocery** --Anheuser-Busch, A-Hold (Tops, BiLo), Nestle, Phillip Morris
- **General** --ASEA Brown Boveri, Square D, 3M, Westinghouse Electric
- **Government** --California, EPA, GATEC, GSA, IRS, Minnesota, Veterans Affairs
- **Health care** --Abbott Laboratories, Baxter Healthcare, Curtis Matheson, Eli Lilly, Johnson & Johnson, Upjohn
- **Petroleum/Chemicals** --AMOCO, Chevron, DuPont/Conoco, Eastman Kodak, Exxon, Mobil, Pennzoil, Shell, Sunoco, Texaco
- **Transportation** --American Airlines, Union Pacific Railroad
- **Textiles** --James River, Milliken & Company
- **Utilities** --Commonwealth Edison, ConEd, Illinois Power, Pacific Gas & Electric, Southern California Edison, The Southern Company

Marketing and Sales

Harbinger's principal marketing strategy focuses on establishing and expanding the number of trading partners using the Harbinger network and software products.

Harbinger targets trading communities composed of electronic trading partners in common industries or markets conducting recurring business transactions. To achieve this strategy, Harbinger emphasizes sales to hub companies and their trading partners in a range of trading communities.

Harbinger has a three-tiered sales and marketing program:

- First, Harbinger identifies potential hub companies that either seek to formulate an EDI program or that have made the decision to implement EDI. Harbinger representatives meet with the hub company and discuss the procedure for establishing EDI relationships with trading partners.
- Second, Harbinger contacts the hub company's trading partners through seminars and by telemarketing, informing these parties of the EDI requirements of the hub company and implementation procedures.
- Third, Harbinger uses telemarketing, direct mail, and advertising activities that are targeted at potential customers who are not trading partners of a specific hub.

Harbinger's Marketing Partners Program was formed to establish alliances with application software developers, systems integrators, and value-added resellers of computer products.

- Harbinger's objective is to integrate its products with those of its Marketing Partners and to promote distribution of Harbinger software along with products and services sold by its Marketing Partners.
- Harbinger currently has approximately 200 primary Marketing Partners, including System Software Associates, Westinghouse Canada, Solomon Software, Real World Corporation, and Open Systems and some 300 Referral Partners who receive a fee for revenue-generating referrals.

Harbinger markets and distributes its TrustedLink Banker products and related services through commercial banks and holding companies and bank processors. Harbinger also markets TrustedLink Banker software products and computer network services directly to the customers of certain banks and financial service organizations.

Under the previously described agreement with SSA, royalties received from SSA represented approximately 7% of Harbinger's total 1995 revenue.

Alliances

Harbinger has alliances/partnerships with a range of vendors. Recent announcements are as follows:

- In December 1996, Harbinger and Unisys announced a North American marketing agreement whereby Harbinger will port its UNIX and Windows NT translators to the Unisys ClearPath SMP symmetric multiprocessor platform and Unisys will market the Harbinger VAN, translators, and communications gateways.
- In September 1996, Harbinger and Peachtree Software entered into a strategic partnership related to electronic commerce and the Internet.
 - Harbinger has licensed to Peachtree Software its TrustedLink INP EC software to be marketed with the Peachtree Business Internet Suite, a package that provides small businesses with everything they need to establish a Web presence in less than one hour.
 - Peachtree will distribute Peachtree Business Internet Suite through its extensive retail and reseller channel as well as selling direct to existing customers.
 - Harbinger will provide Web site hosting services for Peachtree customers, enabling Harbinger's server software to convert orders placed via the Internet into a format readable by Peachtree's accounting software.
- In May 1996, Harbinger announced a series of strategic alliances with BellSouth, Control Data Systems, Hewlett-Packard, Netscape, Northern Telecom, RSA Data Security, and UUNET Technologies related to Internet EC. Harbinger is teaming with these companies and incorporating their respective offerings into Harbinger's own software and services.

Competition

Major VAN competitors include Sterling Commerce, GE Information Services, and Advantis.

Software competitors include Premenos, Sterling Commerce, GE Information Services, and Supply Tech.

Internet competitors include Forman Interactive and iCAT.

Assessment

Harbinger's strengths include:

- Integrated services and software across platforms, addressing the needs of all members of a trading community, regardless of size
- A focus on mass deployment/rollout programs
- Trading partner relationship management
- Network and trusted third-party services

Challenges over the coming year include:

- Continuing the momentum of Harbinger becoming a full service electronic commerce company by adding additional EC products/services to its EDI suite
- Integrating its European acquisitions and expanding into other parts of the world
- Continuing to hire and develop good people to maintain the growth rate and address the opportunities ahead

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Harte-Hanks Data Technologies



UPDATED:
09/01/1996

Headquarters

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Billerica, MA 01821-3961
U.S.

Phone: (508) 663-9955 **Fax:** (508) 667-7297

Company Web Site:
<http://www.harte-hanks.com>

Summary Info

President:	Thomas Swithenbank
Status:	Subsidiary
Parent:	Harte-Hanks Communications, Inc.
Employees:	400 (09/1996)
Revenue: *	\$ 80.0 mil
Year End	Dec-1995

Key Points

- Harte-Hanks Data Technologies is a provider of market information software products and processing services.
- During 1996, Harte-Hanks Data Technologies released TOPS4 (Transportation Optimization Postal Savings)—for the organization of fourth class postal mailings.
- In November 1995, the company introduced PreCISe, a new target marketing system for retailers based on statistical modeling.
- In September 1995, the company released P/CIS 6.0 the latest version of its product providing desktop marketing database support.
- In July 1995, Harte-Hanks Data Technologies and Davox Corporation, a provider of call center technology and integration, announced a marketing agreement whereby the companies will introduce each other's products and services to their customers.

Company Description

Harte-Hanks Data Technologies, founded in 1968 as Urban Data Processing, Inc., develops software for name-and-address parsing, geocoding and matching, data scrubbing and conversion, as well as providing desktop access tools.

In 1979 Urban Data Processing was acquired by Harte-Hanks Communications, Inc. In 1989, Urban Data Processing's name was changed to Harte-Hanks Data Technologies in order to more closely identify with its parent.

Organization and Structure

Harte-Hanks Data Technologies is a wholly owned subsidiary of Harte-Hanks Communications, Inc.

The parent company, Harte-Hanks Communications, is a diversified media company with annual revenue of \$532.¹⁾ million and more than 6,000 employees operating within four principal businesses:

- **Direct Marketing** —a national and international direct marketing business offering a range of specialized and coordinated services
 - In 1995, this business had revenue of \$197.6 million, accounting for approximately 37% of Harte-Hanks Communications' revenue.
 - Harte-Hanks Data Technologies is a unit of the Direct Marketing business.
- **Shoppers**— Based on circulation and revenue, Harte-Hanks Communications claims its business to be the largest publisher of shoppers (weekly advertising publications delivered free by third-class saturation mail to all households in particular geographic area) in North America. In 1995, shoppers accounted for approximately 35% of Harte-Hanks Communications' revenue.
- **Newspapers**— Comprised of sole daily newspapers in five cities, as well as one daily and seven nondaily newspapers in suburban areas of Dallas, accounting for approximately 23% of Harte-Hanks Communications' 1995 revenue
- **Television**— Harte-Hanks Communications owns and operates KENS-TV, a CBS affiliate in San Antonio (TX).

Harte-Hanks Data Technologies is headquartered in Billerica (MA) and has international offices in Toronto (Canada), London (England), Sao Paulo (Brazil), and Melbourne (Australia).

Financials

INPUT estimates that Harte-Hanks Data Technologies' 1995 revenue was approximately \$80 million.

Employees

Harte-Hanks Data Technologies has approximately 400 employees.

Key Products and Services

Harte-Hanks Data Technologies' marketing information systems are available to clients as a processing services or for license as an in-house software product.

PreCISE, released in 1996, is a direct marketing system enabling retailers to use statistical models to predict sales based on scores of prospects' propensity to purchase.

- PreCISE automatically creates a predictive model based on the specific collection of products in a promotional mailing.
- PreCISE allows user-defined geographical segmentation, date, and merchandise content of mailings.
- PreCISE is compatible with MS/DOS, OS/2, Sun Solaris, and IBM/AIX.

TOPS4 (Transportation Optimization Postal Savings), released in 1996, organizes local zone rates to enable catalogers, printers, and retailers, to take advantage of bundled fourth class mail rates. TOPS4 is compatible with MS/DOS.

P/CIS 6.0, released in September 1995, provides desktop marketing database support to consumer and business-to-business marketers.

- P/CIS creates marketing databases using name and address standardization, matching, geocoding, and data appending.
- P/CIS permits execution and tracking of mailings and promotions.
- P/CIS provides customer purchase transactions and complete records to enable accurate market segmentation.
- Data for other applications including standard PC spreadsheets, mapping, database, and graphics tools can be exported.
- P/CIS 6.0 is compatible with Sun Solaris, IBM AIX, and OS/2.
- P/CIS v6.0 supports Token Ring and Ethernet networks.

Predict, introduced in 1994, is a target market modeling program used to select participants for marketing campaigns.

- Predict is integrated with the client's P/CIS product to provide desktop access to the marketing database system.
- The system's targeting models are based on the logit and tobit statistical regression models and rank candidates by probability of expected value of responses.
- The program provides a Relative Importance of Factors report, and is able to provide a statistical log of the model.
- Predict is compatible with Sun Solaris, IBM/AIX, and OS/2.

Desktop Direct, released in 1994, supports database-driven marketing programs to identify cell groups of clients.

- Desktop Direct is integrated with the client's P/CIS software.
- The program maintains a promotion history, including all cell selection criteria for future use.
- Desktop Direct is compatible with Sun Solaris, IBM/AIX, and OS/2.

Trillium, introduced in 1994, is a software system that automates name and address processing at the point of capture.

- Trillium standardizes, deduplicates, matches, and geocodes name and address records.
- Trillium's Geocoder verifies address components, supplies components, and assigns zip codes.
- Trillium's Matcher identifies duplicate or related records, including those with misspellings, abbreviations, or missing information.
- Trillium runs under both UNIX and MVS.
- Trillium is compatible with Sun Solaris; HP/ HP-UX; IBM's mainframe, RS/6000/MVS, CICS, AIX; OS/2; and Unisys.

Profit is a direct marketing application for repricing, retention, and target marketing.

- Profit produces profitability calculations and performs "what-if" analyses.
- Reports provide profitability results by unit, product, or balance levels.
- Profit is compatible with Sun Solaris; HP/ HP-UX; IBM's mainframe, RS/6000/MVS, CICS, AIX; OS/2; and Unisys.

Corporate View is a decision support system that automates reporting for functions such as marketing, sales, product management, and operations.

- Corporate View provides trend analyses, pricing evaluations, and portfolio analyses.
- The system creates reports and graphs by transforming large databases into repositories of performance statistics. Results are integrated and presented in Microsoft Excel or Lotus 1-2-3.
- Corporate View is compatible with Microsoft Windows 3.x.

Clients

Harte-Hanks supports more than 100 leading corporations worldwide. Clients are located in the U.S., Canada, the U.K., Brazil, and Hong Kong.

Marketing and Sales

Harte-Hanks Data Technologies markets its products and services through a direct sales force to firms in various industries, including banking, insurance, mutual funds, retail, catalog, telecommunications, computer manufacturing, automobile, and packaged goods.

Alliances

In July 1995, Harte-Hanks Data Technologies and Davox Corporation announced a formal business relationship whereby the two companies will promote each other's products and services to their customers.

- Davox, located in Westford (MA), is a leader in the field of call center technology and integration, providing products which integrate the inbound and outbound requirements of a call center.
- The alliance is intended to promote the integration of Harte-Hanks Data Technologies' target marketing products and services with Davox's Unison call center management system, providing a complete system for the testing of telemarketing campaign models.

Competition

Harte-Hanks Data Technologies' considers its major competitors to be CIC and Okra (owned by Harland).

Parent Company

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San Antonio, TX 78216
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Hewlett Packard



UPDATED:
02/25/1998

Headquarters

3000 Hanover Street
Palo Alto, CA 94304
United States

Phone:
650-857-1501

Fax:

Company Web Site:
<http://www.hp.com>

Summary Info

Chairman/Pres/CEO: Lewis E. Platt
Status:
Parent:
Employees: 124,600 (12/1998)
Revenue: \$ 47,061.0 mil
Year End Dec-1998

Capability Profiles

CAPABILITY	REGION
<u>Business Continuity Services</u>	U.K.
<u>Business Continuity Services (French)</u>	France
<u>Business Continuity Services (German)</u>	Germany
<u>Customer Care and Billing Solutions</u>	Europe
<u>Network Management and Support</u>	U.K.
<u>SAP Services (French)</u>	France

No main company profile is available for this company.

Click on one of the Capability Profile links
to view this company's capability profile in the market listed.

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**HSO Business Systems, Inc.****UPDATED:**
05/15/1998**Headquarters**11260 Roger Bacon Dr.
Suite 500
Reston, VA 20190
U.S.**Phone:** 703 318 9495 **Fax:** 703 318 9496**Company Web Site:**
<http://www.hso-international.com>**Summary Info**

CEO:	Peter ter Maaten
Status:	Private
Employees:	270 (04/1998)
Revenue:	\$ 5.0 mil
Year End	Dec-1997

Capability Profiles

CAPABILITY	REGION
Baan Services	Europe
Baan Services	U.S.

No main company profile is available for this company.

Click on one of the Capability Profile links
to view this company's capability profile in the market listed.For INPUT Hotline Support, submit e-mail to hotline@input.com

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I-NET, Inc.

New
Search

UPDATED:
09/01/1996

Headquarters

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U.S.

Phone:
(301) 214-0900

Fax:
(301) 214-0001

Company Web Site:
<http://www.inet.com>

Summary Info

President:	Ken Bajaj
Status:	Subsidiary
Parent:	Wang Laboratories, Inc.
Employees:	3,000 (12/1995)
Revenue:	\$ 327.0 mil
Year End	Dec-1995

Key Points

- I-NET specializes in network computing and communications services, with a specific focus on supporting enterprise-wide networks and desktop environments.
- In August 1996, Wang announced it had completed the acquisition of I-NET, significantly expanding Wang's network services capabilities worldwide.
- I-NET company has experienced a compound annual growth rate of 50% since its founding.
- In April 1996, I-NET announced MINTSSM, a new managed Internet service that provides a complete one-stop source for Internet and World Wide Web support and services.

Company Description

I-NET provides systems integration and systems operations services to federal government and commercial clients through 50 offices worldwide.

In August 1996, Wang acquired I-NET for \$100 million in cash and a \$66.7 million one-year, interest-free note. Additionally, Wang will assume approximately \$40 million of existing I-NET debt.

- The acquisition increase's Wang's ability to provide network services worldwide. Its combined \$1.5 billion services business will be focused in the fastest growing segments of the industry-network and client/server services.
- The acquisition also brings a solid base of business to Wang; with I-NET's federal business, Wang will become a \$400 million federal information technology services provider.
- I-NET will operate as a wholly owned subsidiary of Wang and Ken Bajaj will continue to lead I-NET as president.

Organization and Structure

I-NET is headquartered in Bethesda (MD) and has offices in 30 states and overseas.

U.S. offices/project sites are in Alabama, California, Colorado, District of Columbia, Florida, Georgia, Hawaii, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Mexico, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin, and Puerto Rico.

International locations are in Bogota (Columbia), London (England), Edinburgh (Scotland), Stuttgart (Germany), Singapore, Kuala Lumpur, and Caracas (Venezuela).

In September 1996, I-NET announced a reorganization into the following units:

- Commercial
- Federal
- International
- Enterprise Services

Through I-NET's ten-year history of providing solutions, the company has developed seven main Technology Centers--specific groups focused on a core technology with specific tools, techniques, experience, and expertise. These centers include:

- Enterprise Consulting
- Network Integration/Desktop Services
- Network Operations/Management
- Network Computing
- Document Management
- Software Applications
- Object Technologies

I-NET also has Vertical Market Business Centers, headed by business leaders who understand the issues related to technology for their market and work with industry to determine specific customer needs.

Company Strategy

I-NET's mission statement is "to be the premier provider of networking and client/server systems and services which will deliver a maximum return on investment and sustainable strategic advantage for its clients."

I-NET's approach to outsourcing has been based on the following principles:

- Partnership--sharing in rewards and risks
- Single point of accountability
- Service oriented, service level agreements
- Understanding the importance of human resources
- Vendor independence--"Best of Breed"
- Ongoing cost reductions and savings
- Technology refreshment and infusion
- Flexibility

As a network integrator, I-NET has experience in designing, implementing and operating end-to-end computer and telecommunications services and applications for its clients.

- The company's solutions include performance and cost incentives that provide for a sharing of rewards and risks with its business clients/partners.
- I-NET has experience as both a prime contractor and subcontractor. As part of its "Best of Breed" contracting approach, I-NET first looks at the needs of the business partner/client and then develops a team and a solution that best fits the needs of the customer.

All I-NET outsourcing efforts include:

- Frequent, sustained interaction with clients
- Proper tools and industry experts to perform rapid analysis, reduce duplication of effort, improve quality, ensure timely delivery of service and reduce costs
- Adaptive standards, procedures and methodologies to ensure continuous improvement to meet future business requirements
- Sound project management, emphasizing communications, service level standards and schedule, quality and cost control
- Solutions that leverage vendors, provide economies of scale and take advantage of shared services then appropriate.
- Be prepared to respond quickly and correctly

As a result of its acquisition by Wang, the company will increasing focus on its international business, as well as domestic commercial and government clients.

Financials

I-NET's 1995 revenue reached approximately \$327 million, up 39% from 1994 revenue of \$235 million.

A four-year revenue summary follows:

I-NET, Inc.
Four-Year Revenue Summary
 (\$ Millions)

Item	Fiscal Year			
	1995	1994	1993	1992
Revenue	\$327	\$235	\$148	\$96
<ul style="list-style-type: none"> Percent change from previous year 	39%	60%	55%	N/A

Revenue Analysis by Product/Service

An estimated 55% of I-NET's revenue is derived from network integration services and 45% from network and data center outsourcing services.

Market Financials

Currently, approximately 50% of I-NET's revenue is derived from the federal government and 50% from commercial clients primarily in energy, health care, manufacturing, finance, and media and entertainment.

Prior to 1993, virtually 100% of I-NET's revenue was derived from government clients.

Geographic Markets

Approximately 95% of I-NET's 1995 revenue was derived from the U.S. and 5% from international sources.

Employees

I-NET currently has more than 3,000 employees worldwide.

Key Products and Services

I-NET offers client/server and networking solutions in five categories of service as follows:

- Networking and Infrastructure--LAN, WAN and Telecommunications
- Desktop Services (Desktop Management Systems)
- Data Center and Operations Support
- Software Development and Consulting Services
- Paperless Office and Workflow Automation

Networking and Infrastructure--LAN, WAN and Telecommunications

I-NET has expertise and experience in designing and implementing local and wide-area networks and telecommunications services in the following technology areas:

- Wireless services (radio, HF/VHF/UHF, microwave, satellite, cellular, PCS)
- Voice services (PBX, carrier, CPE, Centrex services)
- WAN data services (frame relay, private line, ATM, packet, SONET)
- LAN data services (equipment, software, cable/wiring)
- Network management services (fault, configuration, accounting, performance, security/FCAPS)
- Security services (risk, planning, penetration analysis, disaster recovery, fraud)
- Video services (teleconferencing, TV studios)

In conjunction with the above listed areas, I-NET can provide its customers with planning, engineering and network optimization, acquisition, implementation and testing, training, operations and maintenance and management.

MINTS, I-NET's managed Internet service, introduced in 1996, provides optimized Internet access, remote management of Web sites and servers, Web site and home page authoring and hosting, intranet development, custom reports on Web usage, and Internet help desk and end user support services.

Desktop Services

I-NET provides help desk and desktop management services at the client site or at a centralized I-NET site. The company has global support capabilities and expertise with service level agreements.

Desktop services include acquisition, installation, asset management, help desk, training, system management, monitoring and maintenance.

Data Center and Operations Support

Services provided by I-NET in this area include operations and maintenance, problem management, user support services and database administration.

I-NET capabilities include data center evaluation, planning, integrating data centers with network control centers and infusing new technologies to reduce costs.

Software Development and Consulting Services

I-NET provides full life cycle systems and software engineering and management support services to integrate information technologies within user environments.

Services provided by I-NET include downsizing/rightsizing, software development, database design/implementation, Year 2000 solutions, software conversion/migration, client/server computing, business process reengineering, CASE/I-CASE, information engineering, consulting, and data warehousing.

Paperless Office and Workflow Automation

I-NET uses data integration, file formatting, optical imagery, and application software development in support of documentation management.

Capabilities in this area include workflow analysis and modeling, paper/fiche high-speed scanning and optical storage and retrieval.

I-NET has implemented image conversion systems for color photographs, remote sensing, aerial photographs and E-size drawings.

Contracts

In April 1995, I-NET, The Genix Group, and CAP GEMINI AMERICA were awarded a five-year, \$100 million transformational and outsourcing contract with Ralcorp Holdings, a St. Louis-based food manufacturer, to provide strategic systems planning, system transformation and data center and desktop management services. I-NET is responsible for Ralcorp's LAN, WAN, and desktop support, including user training, help desk operations and technology refresh programs.

In early 1995, I-NET, Andersen Consulting and Power Computing/Origin IT signed a \$500 million contract to provide outsourcing services to Halliburton Energy Services (Houston, TX). I-NET is responsible for desktop and LAN services under the contract.

Other Contracts

I-NET is providing network operations for British Petroleum Exploration in support of voice, video, data and information systems.

For Enron, I-NET has provided various network modeling design and communications analysis, design and operations support services.

For Bell Atlantic, I-NET is designing, developing and implementing a records management system for employment applications.

For Naval Sea Systems, Fleet Logistics Center, I-NET moved Oracle and e-mail applications from an IBM mainframe platform to LAN-based UNIX processors.

In September 1994, I-NET was awarded a \$42 million contract to provide information and communications support for NASA's Ames Research Center.

In late 1993, I-NET, Federal Computer Corp. (Bethesda, MD) and International Data Products (Gaithersburg, MD) formed a limited partnership--Justice Technology Partners--to provide the FBI with 20,000 networked 486SX PCS over a three-year period, along with eight years of LAN maintenance.

In 1993, I-NET was awarded two, five-year contracts valued at approximately \$35 million with the U.S. Post Office. The contracts allow Post Office field offices to purchase standard equipment and are expected to lead to improved network compatibility.

- A \$20 million LAN equipment contract involves multimedia networking hubs and interface boards. The LAN products are being provided by SynOptics Communications.
- A \$15 million WAN contract involves network management systems, as well as bridging and routing equipment. The WAN equipment is being provided by Wellfleet Communications.

Clients

Government clients include the U.S. Senate, Defense Information Systems Agency, FAA, FBI, NASA, the U.S. Air Force, U.S. Army, U.S. Navy, U.S. Postal Service, the EPA, and Kennedy Space Center.

Commercial clients include Bell Atlantic, British Petroleum Ltd., Consolidated Natural Gas, Enron Oil, Halliburton Energy Services, LSI Logic Corp., LTV Steel, Ralcorp, Shell Oil, and Southern New England Telephone.

Marketing and Sales

I-NET markets its services through a direct sales force and through alliances with a range of vendors.

Alliances

As a total solutions provider, I-NET remains vendor independent in order to provide unbiased recommendations for hardware/software solutions that best meet the needs of its clients.

I-NET has worked with a wide range of vendors in order to meet the needs of its clients.

- I-NET has a teaming agreement with Instant Video Technologies, Inc. for the design and implementation of multimedia networks for the cable television industry.
- I-NET has worked with Kodak in the area of imaging.
- I-NET has worked with AT&T, MCI, Sprint and others in areas related to telecommunications.
- I-NET is a member of Gensym's Solution Partner program.
- I-NET has a marketing alliance with UB Networks related to UB's networking products.
- I-NET has a marketing agreement with Isicad to use, sell and support Isicad's Command network management software.

Competitors

Competitors include EDS, Andersen Consulting, Digital, Advantis, Computer Sciences Corporation, and Price Waterhouse, among others.

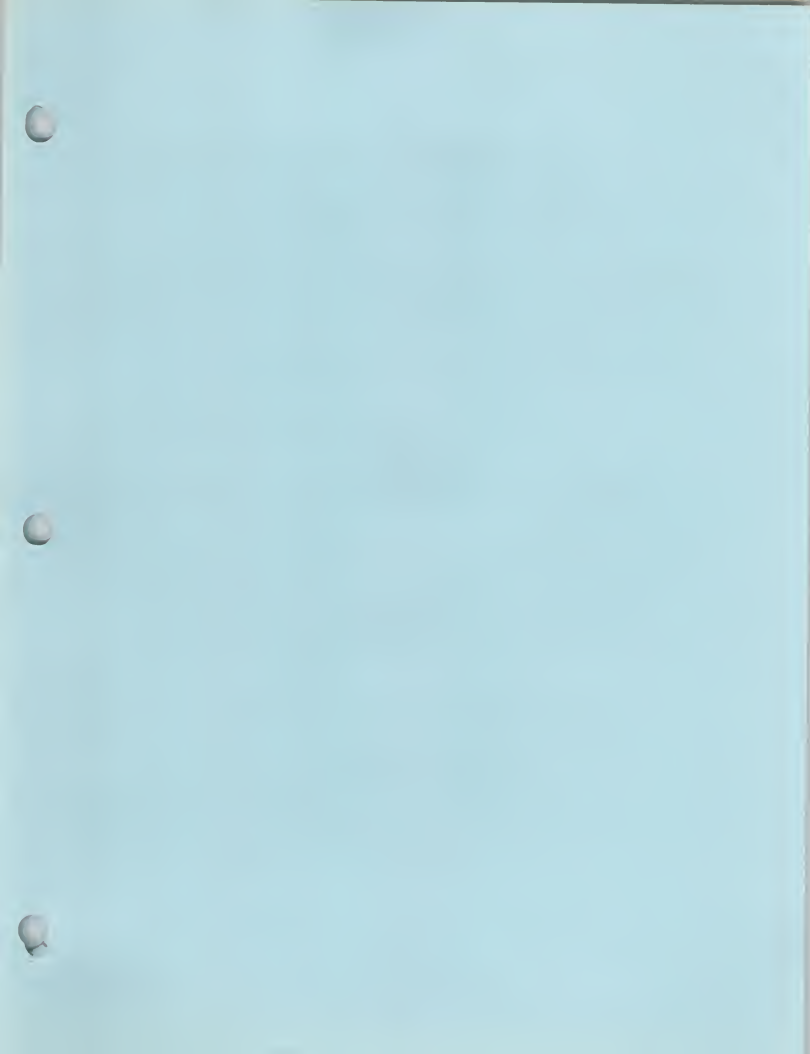
INPUT Assessment

I-NET's strengths include its network services expertise and skills, which have been enhanced through the many complex projects it has performed for the federal government, as well as approach to teaming with a range of vendors. The company also will gain a significant presence in international markets as a result of its relationship with Wang, which is strong internationally.

Challenges for I-NET include successful integration of Wang's operations and managing the company's rapid growth.

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02/25/1998

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IBM

*New
Search*

Summary Info

Chairman/CEO:	Louis V. Gerstner, Jr.
Status:	Public
Parent:	IBM Corporation
Employees:	116,000 (12/1997)
Revenue:	\$ 81,700.0 mil
Year End	Dec-1998

Capability Profiles

CAPABILITY	REGION
Electronic Commerce for the Enterprise	U.S.
Federal Systems Integration	U.S.
Outsourcing Services	U.S.

Key Points

- IBM Global Services is the world's largest IT services provider, with over 116,000 employees in 164 countries.
- Services are broadly defined as network services, product support, and professional services, with a number of cross-discipline services being developed or repackaged and offered as electronic business services.
- IBM Global Services' electronic business services portfolio, which spans across functional units, includes e-business advisory services, intranet/extranet services, e-commerce services, security services, managed network services, distributed learning services, and support services.
- Services, including electronic business services, are offered for all stages of IT development: plan, architect, construct, and operate.
- Solutions for small- and medium-sized businesses, sold mainly through IBM Business Partners, are increasingly the focus of new product design and packaging.

Company Description

IBM Global Services is the largest IT services company in the world. The business unit offers strategic IT solutions including product support, network services, consulting, outsourcing, systems integration, and education and training.

In May 1997, IBM agreed to pay \$450 million for Sears, Roebuck and Company's 30% share of Advantis, the networking services joint venture formed in December 1992 between IBM and Sears, resulting in IBM's full ownership of the organization.

Company Strategy

IBM Global Services' mission is "to be recognized as the leader in IT services by enabling our customers to use technology to be leaders in their marketplaces."

To support this mission statement, IBM Global Services has reevaluated its services offerings and

moved significantly into Internet- and intranet-enabled environments. IBM Global Services has defined e-business as "transforming key business processes by using Internet technology." This has led to a number of initiatives including "Reinventing Product Support Services" and the development of an e-business services portfolio.

Organization and Structure

In January 1995, IBM formed the IBM Global Services organization, consolidating three former services units—IBM ISSC, IBM Global Network, and Availability Services—into one global services organization, reducing and streamlining the number of service offerings. IBM Global Services is headed by Senior Vice President and Group Executive Sam Palmisano.

IBM Global Services offerings are based on four global competencies:

- Managed operations (outsourcing)
- Systems integration/application development
- Education and training
- Consulting (provided across the three other competencies)

IBM Global Services is organized by geography, with each geography headed by a General Manager, except for Network Services which is organized globally:

- North America, headed by Doug Elix
- Europe/Middle East/Africa, headed by Hans Ulrich Maerki
- Asia/Pacific, headed by Fred Amoroso
- Latin America, headed by George Khoury

Each major geographic region is organized into three business segments:

- Product Support Services (PSS)
Prepackaged and customized solutions for IT planning, design, implementation, and operational management; multivendor technical support; and Web site development and management are offered through PSS. Services have support options available for both technical staff as well as the computer user.
- Professional Services
Business transformation consulting, application development, project management, outsourcing services, and integration services offered by business operation or throughout a client organization.
- Network Services
IBM Global Services operates data/voice/video networks; creates private networks; offers managed e-Commerce, Internet and intranet, messaging and collaborative services; provides network outsourcing services; and delivers education and training through connectivity and delivered over the IBM Global Network.

The IBM Global Network provides local Internet access in over 1,000 locations in more than 50 countries and offers leased line or dial connections in 900 cities in more than 100 countries. Network Services serves 33,000 companies and institutions worldwide.

IBM Global Services also has a number of teams that channel industry-specific solutions through the above-named business segments. The industry teams include: banking, finance and securities; chemicals; community finance; distribution; education; forest products; government; health; insurance; manufacturing; metals and mining; process and petroleum; retail distribution; telecommunications and media; textiles; travel and transportation; utility and energy service; and wholesale distribution. There are also groups dedicated to offering solutions for mobile and wireless

computing and small- and medium-sized enterprises.

Financials

IBM Global Services reported \$19.3 billion in revenue for fiscal 1997.

Exhibit 1

Three-Year Revenue Summary (\$ in billions)

	1997	1996	1995
Revenue	\$19.3 22%	\$15.9 25%	\$12.7 n/a
<ul style="list-style-type: none"> Percent change from previous year 			

• Source: IBM Corporation

IBM does not publicly announce revenue by services, but does provide some financial highlights and growth percentages, allowing INPUT to develop the following figures:

- INPUT estimates that \$10 billion of IBM Global Services revenue was attributed to PSS, with \$6 billion in maintenance revenue and \$4 billion in revenue from other support services, with significant growth in multivendor support services.

PSS revenue developed through IBM Business Partners doubled in 1997 versus the previous year to approximately \$1 billion.

- Professional services, including managed services, reported 32% revenue growth in 1997 over the previous year.

INPUT estimates that IBM Global Services \$19.3 billion in fiscal 1997 revenue was derived approximately as follows, by INPUT product/service definition:

Maintenance	31%
Network Services	14%
Outsourcing	31%
Professional Services	12%
Systems Integration	12%
	100%

Acquisitions

In March 1998, IBM announced its intention to acquire The Chem Systems Group, Inc., a management consulting firm serving chemical and petroleum companies. The company will operate as Chem Systems, An IBM Company as part of the Consulting Group within IBM Global Services. Chem Systems is more than 33 years old, with main offices in London and New York and supporting operations in Asia Pacific and worldwide, and employs approximately 160 people.

Market Focus

IBM Global Services currently participates in eleven major vertical industry segments, including education; finance; insurance; health; manufacturing; distribution; media and telecommunications; government; travel and transportation; utilities; and process and petroleum.

Employees

IBM Global Services has more than 116,000 services employees in 160 countries. More than 20,000 employees to date are focused on e-business.

- Product Support Services has more than 40,000 employees that function as IT planning professionals; design, implementation and operational specialists; and systems management specialists.
- Professional Services has more than 60,000 application developers, systems integrators and outsourcing professionals, more than 4,000 professional consulting practitioners and information technologists, and at least 3,500 devoted to education and training functions.
- Network Services employs more than 8,000 worldwide.

INPUT estimates that over 33,000 IBM Global Services employees are assigned to managed operations.

Key Services

Services offered by IBM Global Services by business segment are outlined below.

Managed Operations

The company provides day-to-day management for significant portions, if not all, of the client's IS infrastructure, including operations, production control, end-user support, maintenance, and application development and maintenance.

IBM Global Services may also work with clients to design a new IS environment, then develop and manage the total implementation.

The implementation may include consolidation of multiple data centers, voice and data networks, standardization of platforms, application convergence, and systems management.

Managed operations services are available from IBM Global Services as follows:

- Remote Systems Operations— IBM Global Services remotely manages the client's current systems from its four regional facilities in the U.S. and others worldwide.
- Onsite Operations— IBM Global Services assumes on-site operational responsibility, which may involve the consolidation and restructuring of existing facilities.
- Shared Host Environment— The customer's processing requirements are brought into an existing IBM Global Services facility.

IBM Global Services also provides applications management outsourcing, including applications development, maintenance, and operations.

Network Services

IBM Global Services maintains and operates the IBM Global Network, which serves 33,000 customer enterprises in 900 cities and 100 countries.

IBM Global Services provides Internet services, which include Internet access and content hosting, secure networking and firewall services, e-mail and messaging services, and web EDI.

Network Services also offers managed data network services and network outsourcing services.

Product Support Services

- Business Recovery Services (BRS)—consulting services and recovery support for large systems, midrange and distributed environment customers.

Services offered by BRS include anti-virus services, business resumption services, consultation services, high-availability services, recovery services, workgroup and voice recovery services, and Year 2000 testing services.

- Hardware and software support services
 - Hardware and software support services include planning, design, installation, migration, and change services; maintenance support services; integration services; and operational support services.
 - Hardware support services includes hardware services for IBM systems and multivendor services for non-IBM systems.
 - Software support services includes software services for IBM operating systems, systems software and middleware over all IBM platforms, and selected services for multivendor software.
- Site and connectivity services
- Systems management and networking services
 - Systems management and networking services include asset services, help desk services, network consulting, networking product services, performance management and capacity planning services, software distribution and deployment services, systems management consulting, and testing services.

Professional Services

- Business transformation and management consulting
 - Data security consulting
 - Information technology consulting
 - Object technology services
- Education and training services
- Electronic business services (see e-business services portfolio below)
- Enterprise application enabling services
 - Business intelligence
 - Enterprise resource planning
 - Year 2000 services

- Strategic outsourcing: operational management solutions and customized solutions
- Systems integration services

e-business Services Portfolio (within Professional Services organization)

IBM Global Services created the "e-business Services Portfolio", a composite portfolio of select electronic business-related services that draws upon service capabilities across business segment.

- Distributed learning services
 - Custom intranet-based education
 - Internet-based learning
- Electronic business advisory services
 - One day e-business seminars
 - One to two day opportunity workshops to help attendees prioritize top e-business opportunities
 - Three day strategy workshops where attendees create custom e-business plans
- Electronic commerce services
 - Business planning for electronic commerce
 - Electronic financial services
 - Electronic retailing/trade
 - Electronic transaction services
- Internet/extranet services
 - Application services
 - Infrastructure services: assessment, architecture design and implementation
 - Messaging services: messaging design, e-mail migration and enterprise messaging integration
- Managed network services: operational services for connectivity, network management and network security
- Security services
 - Awareness workshops
 - Assessments & planning services
 - Architecture & design services
 - Implementation services
 - Management services
- Support services
 - Consulting
 - Outsourcing and operational support

The e-business Services Portfolio spans the stages of an enterprise's electronic business development:

plan, architect, construct, and operate.

Network-Delivered Application Services

In February 1998, IBM and JD Edwards announced a service that allows network-delivered access to JD Edwards enterprise resource planning software. The service is available through IBM Global Services for a small initial charge and a monthly per-user charge.

Designed to provide small- and medium-sized businesses with key business management systems applications, Business Computing Utility (BCU) is a network-delivered application service that allows remote data access, query, transfer and reporting functions of management systems applications billed on an as-used basis. Typical business management applications of the BCU include: general ledger, asset accounting, accounts payable, accounts receivable, order entry, billing and inventory.

Clients

Sample clients of IBM Global Services include American Express Financial Advisors; Ameritech; Baxter Healthcare Services, Inc.; Eastman Kodak Company; Federal Express; Hertz, Marriott International; Nintendo of America, Inc.; Pacific Bell; Phillips Petroleum; Pitney Bowes; Prudential; Rubbermaid; Texas Instruments; Unocal; Washington Mutual; and Waste Management, Inc. For a sampling of outsourcing clients, see Exhibit 2.

Marketing and Sales

IBM Global Services is aggressively seeking to increase the number of resellers and business partners marketing its services. The majority of IBM PC's are sold and delivered through the Business Partner channel and IBM Global Services would like PC services to have similar percentages.

Strategically, IBM Global Services wants partners to reach small- and medium-sized businesses, as IBM Global Services is projecting greater growth in small- and medium-sized businesses versus companies with greater than 500 employees.

With more than 100 training partners worldwide, partners now deliver more than 20 percent of IBM training. IBM Global Services is also looking to partners to sell and deliver Y2000 services before, during, or after the application code is being assessed and converted by IBM.

New sales channels

IBM Global Services is not exclusively focused on partner channels, as a couple of new distribution approaches have been implemented:

- IBM Direct Marketing allows customers to buy services directly from IBM telesales agents.
- Network-based IT services that can be purchased on the Internet include Web site hosting, IBM's HomePage Creator, IBM Global Campus, and OneWeb.

Exhibit 2

**IBM Global Services, Sample Outsourcing Awards
1997 through 1Q 1998**

IBM Client	INDUSTRY	AWARD (\$M)	OUTSOURCING TYPE	LENGTH (YRS)	YEAR
Alberta (Canada) "Wellnet"	Health	250	Application Management	5	1997
American Power Conversion	Utilities	30	Network Mgt	10	1997
Ansett Australia	Transport	300	Network Mgt	7	1997
Cathay Pacific Airways	Transport	150	Systems Management	9	1998
Daiwa Bank	Finance	200	Application Operations	10	1997
El Camino Hospital	Health	65	Network Mgt	10	1997
FNAC	Retail	127	Application Operations	7	1997
G.E. Capital	Business Services	1,500	Systems Management	10	1998
Halliburton	Utilities	400	Intranets/Extranets/Web Hosting	7	1998
Italcementi	Proc Mfg	41	Systems Development	7	1998
Karstadt	Retail	200	Application Operations	10	1997
Lincoln National	Insurance	72	Systems Development	6	1998
Mazda	Disc Mfg	24	Intranets/Extranets/Web Hosting	2	1998
Mercantile Mutual	Insurance	74	Desktop Svcs	5	1997
Monsanto	Proc Mfg	450	Application Operations	10	1997
New Zealand Dairy Board	Misc. Industries	20	Systems Management	2	1998
Nova Gas Transmission Ltd.	Proc Mfg	392	Desktop Svcs	5	1997
Pearl Assurance	Insurance	50	Application Operations		1997
Prudential Corp. Australia	Insurance	44	Systems Management	5	1998
Prudential Insurance Co.	Insurance	200	Application Management	5	1997
Ryder System, Inc.	Transport	1,400	Application Operations	10	1997
Ryder System, Inc.	Transport	700	Business Operations	10	1997
SC Johnson Wax	Proc Mfg	200	Technical Consulting	10	1998
Snow Milk Products	Proc Mfg	6	Systems Management	1	1998
Telstra	Telecom	2,900	Application Operations	10	1997
TruServ	Disc Mfg	32	Application Management		1997
VARIG Brazilian Airline	Transport	300	Application Operations		1997
VHA Inc.	Health	100	Network Mgt	3	1997
Westchester County, NY	State/Local	85	Application Operations	7	1997

Source: INPUT

Shrink-wrapped services

IBM Global Services has developed pre-packaged technical support services for the partner and reseller channel, called ServicePacs, that are predefined and prepriced for maintenance and services on both IBM and non-IBM technology.

ServiceSuite™ is a prepackaged suite of IBM maintenance services for hardware with options to include Support Line and Alert services or Support Line, Alert Services and on-site software maintenance.

ServiceElect™, similar to ServiceSuite™, is designed primarily for large enterprises that need to

craft a customized, integrated services solution. ServiceELECT™ combines hardware maintenance with other product support services in one consolidated contract.

Protection Express for AS/400 and RS/6000 is a flexible set of services prepackaged for small- and medium-sized businesses that ensure customers' business-critical applications will be accessible in the event of a system outage or disaster.

IBM Global Services introduced six packaged offerings for education and training services in February 1998: the IBM Education Card offers unlimited IBM education and training in public classes and conferences for one year at one price; the IBM Education Pack is a book with \$5,000 in coupons to be used towards IBM education and training; the IBM AIX Education Starter Kit is five days of basic AIX training at public classes and a series of IBM Redbooks on CD-ROM for RS/6000 owners; the IBM AS/400 Education Starter Kit provides admittance to attend any two AS/400 classes and the AS/400 series of IBM Redbooks on CD-ROM; AIX Essentials is a series of five computer-based multimedia training courses based on IBM's AIX training classes; and, the AS/400 Training Library, a series of three AS/400 courses on CD-ROM.

Recent Alliances

In March 1998, GE Capital Services and IBM Global Services entered into a long-term information technology alliance. IBM acquired the commercial data center outsourcing business of GE Capital Services Technology Management Services (TMS) and will serve its current external customers worldwide. IBM will manage the data center and various network operations for GE Capital Services' businesses, as well as for GE Capital Services' customers. GE Capital Services will outsource its mainframe and midrange processing for its own businesses to IBM Global Services.

In February 1998, IBM and J.D. Edwards entered an agreement where customers can access J.D. Edwards ERP applications through a secure IBM Global Network link to a professionally-managed and operated IBM data center for a small initial charge and a monthly per-user charge.

Alliances announced in 1997 include those with Andersen Consulting, BellSouth, Daiwa Bank (Japan), NetDynamics, Novartis, Telebras/Embratel, and Telstra.

Competition

IBM Global Services' key competitors include Andersen Consulting, Cap Gemini, Digital, IDS, CSC, GEIS, Hewlett-Packard, MCI Systemhouse, NTT Data, Perot Systems, and Unisys.

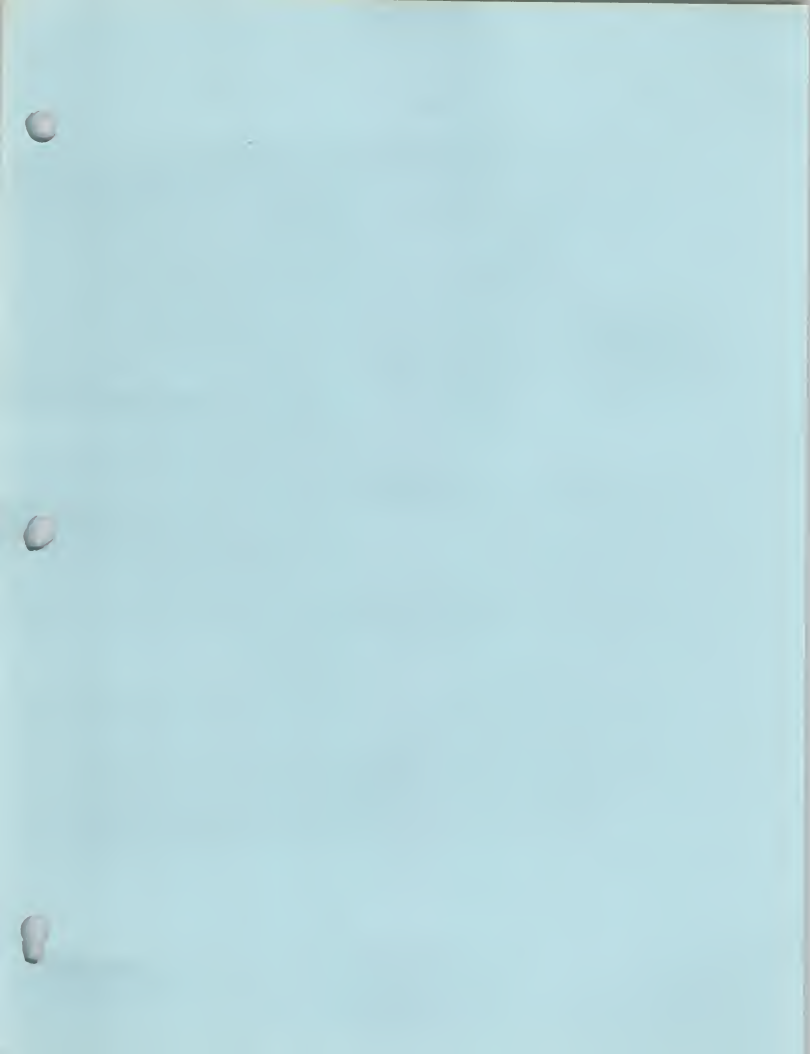
Assessment

IBM Global Services' rapid rise to preeminence in IT services is nearly unique for organic growth within a preexisting organization. IBM Global Services has no intention on letting up the pace, even stealing some of the headlines from another high-profile success story, GE Capital TMS through the outsourcing of GE Capital's data center management business to IBM Global Services.

Quality products, economies-of-scale and simple yet attractive pricing, partnerships that build on complementary skills, and IBM's heritage and reliability are the major selling points of IBM Global Services e-business offerings. As a new entrant to the e-business arena, IBM Global Services is concentrating on contracts that represent a client's initial entry into e-business, rather than going after contracts that have existed in the past. IBM Global Services will continue to expand its services, positioning itself as a viable option for multiple services or complete solutions to customers of all sizes.

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iCat Corporation



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09/01/1996

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Summary Info

President/CEO:	Craig Dunuloff
Vice Chairman:	C. Rowland Hanson
Status:	Private
Employees:	120 (08/1997)
Revenue: *	\$ 1.0 mil
Year End	Sep-1996

Company Description

iCat Corporation, founded in 1993, develops and produces electronic commerce solutions that allow companies to create Internet and CD ROM catalogs.

The *iCat Electronic Commerce Suite* enables merchants to create interactive catalogs, deliver them on the Internet and CD ROM, and accept secure electronic transactions from shoppers.

Organization and Structure

iCat is headquartered in Seattle (WA).

Key executives are listed in the exhibit below.

iCat Corporation Key Executives

Name	Title
Craig Dunuloff	President and CEO
C. Rowland Hanson	Vice Chairman
Jamie Miller	CFO and VP Operations
David C. Jones	VP Marketing
Bo Wandell	VP Sales
Brian Welter	VP Engineering

Company Strategy

iCat's aim is to lower the cost associated with getting started in electronic commerce, and also to reduce the time and expense required.

Financials

INPUT estimates that iCat Corporation generated \$1 million in 1996.

Market Financials

iCat's products are aimed at all companies that want to develop an electronic commerce presence on the Internet or distribute an electronic catalog via CD ROM.

Geographic Markets

Approximately 95% of iCat's 1995 revenue came from the U.S. market, and the remaining 5% came from international markets, specifically Japan.

Employees

iCat currently has over 70 employees.

Key Products and Services

The iCat Electronic Commerce Suite

The iCat Electronic Commerce Suite features a trio of products that make it possible to showcase products and sell them via the Internet or CD ROM.

These three components work together or separately and offer numerous features, including a database that can accommodate millions of products, a customizable assortment of catalog templates, and transaction processing capabilities that include secure credit card processing and custom product searches.

The iCat Electronic Commerce Suite provides secure transaction capabilities to any Internet server via iCat agreements with Checkfree, Open Market, and First Virtual, or through standard security software such as SSL and HTTPS.

The iCat Electronic Commerce Suite is available for Windows 95, Macintosh, Windows NT, Sun, Digital, and multiple UNIX Silicon Graphics platforms.

The three components provided in the Suite are as follows:

- *iCat Commerce Publisher* is a software program for creating and delivering interactive catalogs. It allows users to collect and organize content, design screen layouts, and publish catalogs on the Web or a CD ROM. iCat Commerce Publisher can accommodate unlimited product information, catalogs can be updated quickly using the product's relational database, and users can develop custom templates or use one of over 250 predefined templates to create catalogs.
- *iCat Commerce Exchange* adds transaction processing capabilities to any Internet server. It can be used to accept, process, and track electronic orders and shopper registrations from Internet or CD ROM catalogs. Shoppers can register on-line, add products to a personal shopping list, search for specific products, and place orders with shipping and secure payment information.
- *iCat Commerce Player* allows catalogs to be distributed on Macintosh and Windows CD ROM. It includes search features and electronic ordering capabilities.

The iCat Electronic Commerce Suite is available at an introductory price of \$1,495. iCat Commerce Publisher is also available, separately, for \$749. A license allowing two users to work on a catalog simultaneously and three transactions to be processed at a time is priced at \$9,795.

Clients

A sample of clients that have used iCat's electronic software includes Dean and DeLuca, Office Depot, the World Wrestling Federation, Edutainment, GolfWeb, Blossom Flowers, Petals, and the Catalog Site.

Marketing and Sales

iCat has an integrated marketing program that includes print advertising, on-line advertising, direct mail, trade shows, public relations, Web-based direct marketing, iCat seminars, and training programs.

Alliances

iCat has developed joint marketing and technology development agreements with strategic partners to add value to its software.

iCat has technology alliances with Checkfree, NETCOM, Open Market, and First Virtual.

iCat has also developed a number of partnership programs, including the following:

- The *iCat Commerce Partners (iCPs)* program is a nationwide network of companies who use the iCat Electronic Commerce Suite to develop and deliver interactive catalogs. They include interactive developers, traditional printers, prepress houses, and multimedia developers, all of whom receive software and production training as well as sales support from iCat. ICPs include CompuDoc, Com Vista, Computer Network Specialists, and Characters.
- *iCat Internet Service Providers (iISPs)* are Internet Service Providers that are offering hosting services for iCat Commerce Partners and iCat direct customers. Program participants include NETCOM, IMV Internet, Data Pub, and e.media.

Assessment

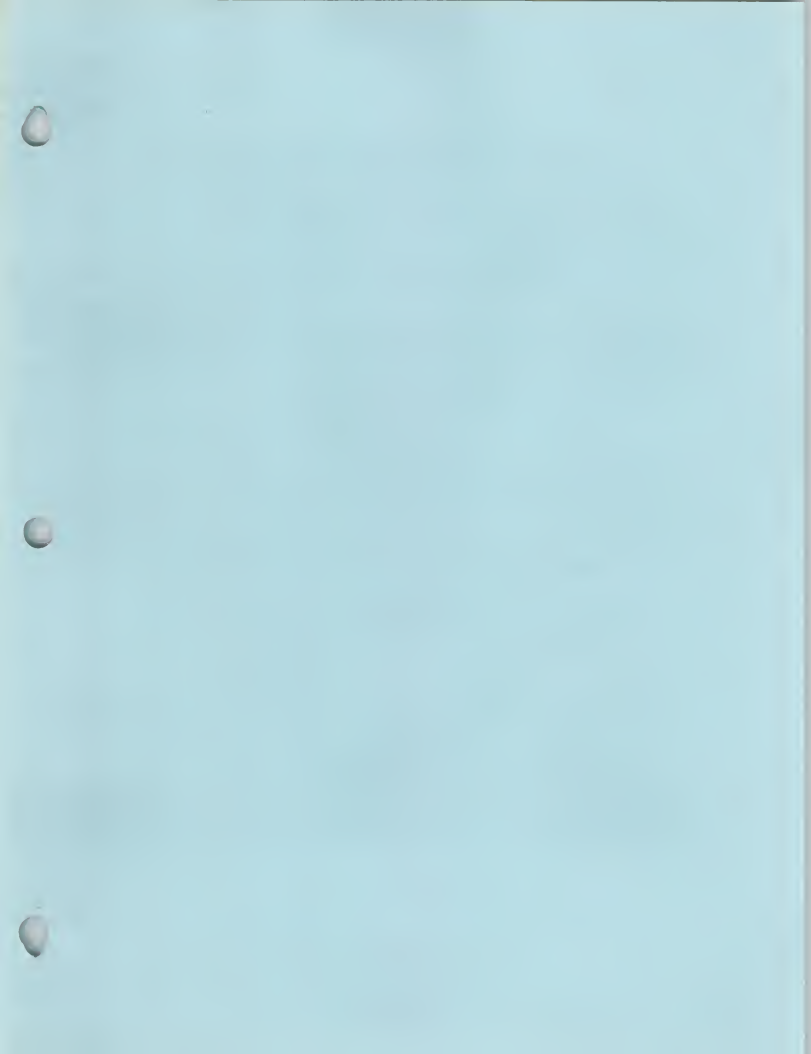
iCat feels that its strengths include the following:

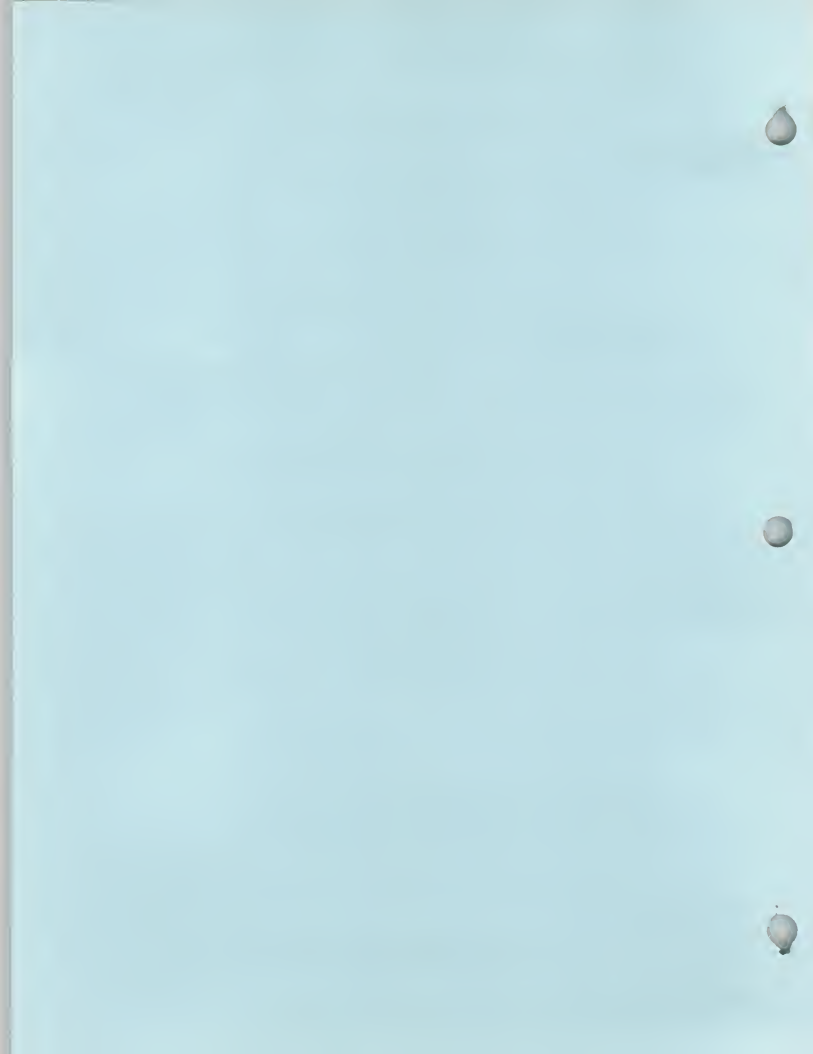
- An early position in the rapidly growing electronic commerce market
- The low-priced solution provided by the iCat Electronic Commerce Suite
- A complete and integrated solution, including everything from the relational database to the secure transaction processing
- Rapid development for users to quickly create an interactive catalog

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ICL PLC



UPDATED:
03/30/1998

Headquarters

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United Kingdom
Phone: +44(0)181 788 7272 **Fax:** +44(0)181 785 3936

Summary Info

Chairman: Michio Naruto
CEO: Keith Todd
Status: Subsidiary
Parent: Majority stake owned by Fujitsu
Employees: 19,000 (12/1997)
Revenue: * \$ 3,963.0 mil

Year End Dec-1997

Capability Profiles

CAPABILITY	REGION
Business Continuity Services (French)	France
Desktop Services	U.K.
Digital Money Solutions	Europe
Intranet Development	U.K.

Key Points

- ICL is an IT systems and services vendor with a strong customer base in the UK, particularly in the public sector.
- ICL returned to profitability in 1997 after posting losses the prior two years.
- ICL is reporting 25% growth in revenue over 1996 in its managed services businesses.
- ICL is focusing on expanding business in Europe and selected international markets, such as US and Asia.

Company Description

ICL was formed in 1968 by the merger of the UK's leading computer suppliers, English Electric Computers (EEC) and International Computers and Tabulators (ICT).

In 1981, ICL entered into a 10-year technology agreement with Fujitsu, which strengthened ICL technologically. Three years later, ICL was acquired by Standard Telephone & Cable (STC) to form the UK's second largest industrial electronics company. However, by the end of the 1980s, it became clear that the computer industry was non-core to STC's business and a new owner was sought for ICL.

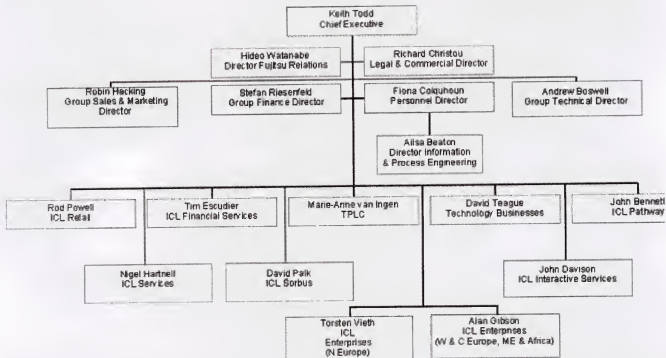
In 1990, Fujitsu bought 80% of its alliance partner ICL. The stake has since increased to 90.1% with the balance owned by Northern Telecom of Canada. ICL was very dependent on its domestic market and eager to expand its penetration of the European market outside the UK. In 1991, ICL acquired the Finnish company Nokia Data - an acquisition which apart from increasing the geographical coverage, also strengthened ICL's PC and LAN product offerings.

Since the early 1990s, ICL has been moving its business focus away from traditional systems vendor activities and to services. Today, ICL under the leadership of Keith Todd, who took over as CEO in January 1996, focuses strongly on systems integration and IT services. Part of this process has led to the spin-off of some of its technically oriented businesses, such as Workplace Technologies, D2D, and the volume products business. ICL still retains its High Performance Systems business with its complex systems skills, increasingly applied in a services context.

Operations and Structure

The restructuring process that ICL has undergone has simplified the organization which only a few years ago had 26 divisions. Exhibit 1 provides an overview of ICL's organization as of January 1998.

Exhibit 1

ICL Organization, 1998

So

ICL's IT services activities are located in the ICL Services, ICL Sorbus and ICL Enterprises businesses.

ICL Enterprises, split geographically, is responsible for large-scale systems integration projects, principally in central local government, the travel and transport sectors, and utilities. The Enterprise businesses specialize in consultancy, management, sales, systems design, implementation and support.

The Enterprise business also covers the Enterprise Technology business unit which specializes in developing and implementing solutions using emerging technologies, such as Internet and interactive multimedia.

ICL Services comprises three main businesses:

- ICL Outsourcing, includes ICL CFM which is one of the UK's largest outsourcing companies. Its responsibilities further include the Distributed Systems and Managed Services divisions. ICL Outsourcing is expanding in international markets
- ICL Network Services is responsible for all network-based services, including Internet-related activities
- ICL Education & Consultancy includes units, such as Enterprise Consultants, AMP Systems Ltd, Enterprise S and ICL Peritas - one of Europe's largest consultancy and training organizations.
- ICL Sorbus focuses on hardware and software maintenance and associated support services across Europe.

ICL has announced the formation of a Services Strategy Board which underlines the importance of the services business ICL's growth strategy. The members of the board are yet to be announced.

Company Strategy

For the past decade, ICL has formed its business strategy around a strategic framework, designed to put the company growth path towards flotation. The major elements of the framework are:

- Increasing share of the services market
- Expansion in Europe
- Maintaining presence in specific international markets
- Strengthening presence in specific industry markets
- Supplying quality products based on open systems
- Thinking globally, acting locally.

The detailed strategies have varied over the years depending on industry trends and the company's situation. Following negative financial results in 1995 (see "Financial Information" section), ICL's new CEO announced a five-point strategy to take the company forward. Since Fujitsu bought a majority stake in ICL, flotation of the company on the London Stock Exchange has been planned. ICL hopes to achieve this before the millennium.

The five-point strategy is as follows:

- ICL will focus its business on retail and financial services sectors; complex systems integration projects world both public and private sectors; multi-vendor services and outsourcing across Europe; and multi-vendor distribution initially in the UK
- ICL will use its global partnership with Fujitsu and its TeamWARE offering to expand its business in the US and Asia
- A Strategic focus on ICL's interactive services business that will develop solutions for customers in the media industries
- ICL will exit the volume products market by de-merging this business into an independent company led by Fujitsu
- ICL will Spin-off D2D, the electronics contract manufacturing business.

Most of these strategies have already been implemented. In January 1997, it was announced that ICL had sold its D2D business to Onex Corp. In July 1996 as planned, the volume products business was spun off into a joint venture company with Fujitsu, where ICL retains less than 20% of the ownership.

ICL has also formed a dedicated interactive services business (see Exhibit 1) and is pushing TeamWARE through a joint venture formed with Fujitsu in March 1996.

Financial Information

In 1996, ICL had revenues of \$4.6 billion, a decrease of 7% over the year before. However, this can largely be explained by the effect of selling D2D and spinning off volume products, which together accounted for around \$840 million in revenue in 1995.

As shown in Exhibit 2, the loss of \$30.7 million during 1996 signals a turn around in ICL's recent fortunes. Taking out from the divested companies ICL showed an operating profit of \$61.6 million.

Exhibit 2

ICL Five-Year Financial Summary 1992 to 1996, \$ Millions

Year	1996	1995	1994	1993	1992
Revenue	4,665	4,982	4,248	4,227	3,919
Annual Growth	-6.8%	17.3%	1.2%	5.9%	32.2%
Profit after Tax	(30.7)	(308.4)	25.4	8.6	45.1
% of Revenue	n/a	n/a	0.6%	0.2%	1.1%
Average Staff Number	19,000	23,795	23,432	25,157	26,614
Revenue per Employee (\$'000)	245	209	181	168	147

So

Exhibit 3

**ICL Three-Year Analysis of Revenues by Region,
1993 to 1996 (\$ millions)**

Region	1996 Revenue (\$)	Share	1995 Revenue (\$)	Share	1994 Revenue (\$)	S
Europe	4,011	86%	4,454	89%	3,682	8
North America	373	8%	298	6%	333	
Africa, South & West Asia	187	4%	176	4%	165	
Asia Pacific	93	2%	56	1%	69	
Total Revenues	4,664	100%	4,984	100%	4,249	1

So

Geographic Markets

Exhibit 3 illustrates the development in ICL's revenues by region from 1994 to 1996. During 1996, ICL has turned around the decline in its North American operation, whilst continuing to grow strongly in its African, Asian and Pacific region. The decline in European revenues is mostly due to the divestiture of D2D and other non-core businesses.

According to ICL, the company is expanding its activities in Europe (outside the UK) and other selected markets, thereby becoming less dependent on its domestic market. ICL claims that less than 50% of its total revenues is generated in the UK. However, with some services offerings being predominantly available only in the UK, INPUT believes that ICL's software and services revenues are still skewed towards the UK market.

Exhibit 4 contains INPUT's estimates of ICL's European software and services revenues in 1996 by country.

Exhibit 4

ICL's Estimated European Revenues by Country, 1996 (\$ millions)

Country	Revenue in \$ millions	Share
UK	1,410	63%
Finland	210	9%
Germany	115	5%
Sweden	105	5%
Denmark	70	3%
Eastern Europe	50	2%
Rest of Europe	440	20%
Total Software & Services	\$2,400	100%

Source: INPUT

Market Analysis

Exhibit 5 shows ICL's European software and services revenues analyzed by INPUT delivery modes.

Exhibit 5

ICL's Estimated European Revenues by Delivery Mode, 1996 (\$ millions)

Delivery Mode	Revenue in	Share
---------------	------------	-------

Delivery Mode	\$ millions	Share
Professional Services	500	21%
Systems Integration	320	13%
Outsourcing	265	11%
Equipment Maintenance	570	24%
Software	240	10%
Other	505	21%
Total Software & Services	\$2,400	100%

Source: INPUT

Key Products and Services

ICL's background as a traditional IT vendor means that the company still largely provides wall-to-wall offerings, although the company in recent years has focused on developing its systems and services image. ICL now has a staff of 1,500 consultants worldwide. The following section covers ICL's services offerings, as well as selected software products.

ICL offers outsourcing in the UK through its ICL CFM operations. The portfolio of services includes:

- Hardware and legacy operations - ICL's traditional facilities management services
- Desktop outsourcing services - include asset management, LAN management and help desk support
- Network management services - comprises ICL's global network and a range of LAN and WAN management services
- Integrated remote service management
- Open transitional services - an offering that is somewhere between legacy system facilities management and systems integration
- Software and application services - application design, implementation, and management services
- Desktop managed services - providing managed service for PC and Unix environments
- Managed operations - include payroll, personnel services and benefit administration services.

ICL's professional services offerings, offered through ICL Enterprises, comprise:

- Project management for large and complex systems integration projects
- Consultancy - specialising in IT consultancy from concept design through development to implementation
- Internet-based solutions - development and management of Web sites and Web-based applications
- Networking - includes network design, integration of network management services, and design and provision of added services to run over the network
- PC application development - including investigation of requirements and recommendation of integrated solutions

ICL's multi-vendor services include:

- Help Desks - a complete range of services from design to day-to-day operations
- Software support - where ICL has a strong relationship with Microsoft. ICL has developed extensive expertise in Microsoft Windows NT and in December 1996 established a Centre of Excellence for these activities
- Operational consultancy & networking - providing vendor-independent project management, consultancy and systems integration for SCO, Hewlett Packard, IBM (including Lotus), and Novell among others.

ICL's bid for the groupware market is called TeamWARE. TeamWARE comprises integrated groupware applications, personal desktop tools, and messaging and connectivity products. ICL and Fujitsu have formed a global TeamWARE organization that will focus on developing, marketing and selling groupware products with one global strategy.

ICL Interactive was formed during 1996 to lead ICL's on-line business development for customers in the media industry and to build new partnerships for the development of interactive learning services. ICL Interactive specialises in the management of complex electronic content. It engineers and operates commercial services across the Internet on behalf of its clients.

customers and partners; foremost among these is its alliance with BBC Worldwide for the BBC on-line service.

Acquisitions and Alliances

Due to its constrained financial status and shift in strategic focus, ICL has made few acquisitions in recent years.

In January 1996, ICL acquired the ProScan II product from Xerox Corporation. ProScan II is an automated mapping system aimed at the utilities market, with a customer base including more than 20 of the major US and UK utility companies.

ICL has been more strongly involved in forming alliances and joint ventures. The major joint ventures have been formed with Fujitsu, such as the aforementioned TeamWARE and volume products businesses.

Microsoft is also a strong alliance partner for ICL. In 1994, ICL was appointed as Microsoft's first pan-European support services such as systems integration, help desk and training. This relationship was expanded in 1996 and ICL is now Microsoft Windows NT Centre of excellence as well as being a Microsoft Authorised Support Centre.

Partnerships include those with Lotus, Microsoft, BMC, Novell, and Computer Associates.

Recent Projects & Major Clients

ICL won a number of contracts in 1997 which exemplify the shift in ICL's business portfolio towards systems and services. Highlights include:

- A 250 million dollar outsourcing contract with BG Transco to manage and operate its telecommunications network
- A Europe-wide help-desk services contract for Apple Computers
- A contract to automate 92 branches of the Bank of Alexandria, Egypt
- A 48 million dollar services contract from Cap Gemini including data center realization, maintenance services and desktop supply services.
- A 35 million dollar contract to provide a financial management system for Hungarian Railways

ICL's client list now counts a large number of international - and high-profiled - customers as illustrated in Exhibit 6.

Exhibit 6

ICL Representative Client List

Vertical Market	Clients
Banking & Finance	Bank of Alexandria, Egypt Chase Manhattan, US VISA, UK
Telecommunications	British Telecom Mercury Communications, UK Swedish Telecom
Energy & Utilities	British Gas, UK Shell, Sweden Texaco
Transport	Hungarian Railways London Underground, UK Swissair, Switzerland
Manufacturing	Kimitsu Works, Japan Zeneca, UK
Retail	Auchan, France

Retail

Daells Varehus, Denmark
T J Maxx, US

Source

INPUT Assessment

During the past few years, ICL's management has taken the company through a series of reorganizations. Each new has been aimed at simplifying the organization and supporting the company's transformation from a hardware company systems and services company.

During 1996, ICL finally divested its contract manufacturing and volume products businesses. This made ICL a much focused organization in 1997.

ICL has moved into some less familiar businesses in the past couple of years, such as multimedia, and Internet and I services. In particular, ICL is delivering services from home shopping to home banking, and from interactive kiosks to information-based services with "edutainment" focus. These could prove to be strong additions for ICL and provide a springboard for expanding outside the UK. These are after all new technologies for most vendors, and the markets are some extent free for all.

One of the keys to success in these new markets is to land strong initial reference projects. ICL has achieved this with BBC Worldwide alliance and an appointment to develop an interactive Internet business trade directory after winning Department of Trade & Industry competition.

In many of the markets ICL now considers top priority, the company will be meeting head on with competitors from more aggressive cultures, such as Andersen Consulting, EDS and Computer Sciences. Traditionally, ICL has to some extent cushioned life in its traditional UK markets. However, ICL is now proving that it can be successful against aggressive competitors. In 1996, ICL - in collaboration with partners such as De La Rue, Girobank, Oracle and BT - won projects the Benefits Agency and Post Office Counters, worth over \$1.5 billion over 10 years. The companies under the name P beat competitors such as Andersen Consulting and IBM.

ICL looks like a more focused organization than it has done for the past five years and also has some strong offerings support its strategies. Fujitsu is eager to float the company and Keith Todd has a target to make ICL ready for this beginning of this century.

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IMI Systems Inc.



UPDATED:
10/01/1996

Headquarters

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Melville, NY 11747
U.S.

Phone:
(516) 425-7700

Fax:
(516) 425-7738

Company Web Site:
<http://www.imisys.com>

Summary Info

President:	Robert Forman
Status:	Subsidiary
Parent:	Olsten Corporation
Employees:	2,500 (12/1996)
Revenue: *	\$ 200.0 mil
Year End	Dec-1996

Key Points

- IMI Systems Inc. (IMI) is an international software development and information technology consulting company.
- In September 1996, IMI acquired Harvey Consultants Limited, a U.K.-based consulting and staffing firm.
- During 1996 IMI acquired the information technology division of Systems Partners, an engineering staffing firm.
- In March 1996, IMI purchased the assets of ARMS Inc., a Haddonfield (NJ)-based software consulting services provider.
- On August 2, 1995, IMI became a wholly owned subsidiary of Olsten Corporation, a provider of staffing and home health care services.

Company Description

IMI, headquartered in New York (NY), is a wholly owned subsidiary of Melville (NY)-based Olsten Corporation, a \$2.5 billion provider of staffing and home health care services. IMI is a part of Olsten's Staffing Services business.

Founded in 1979, IMI began in the billing area by specializing in designing and developing, then eventually in deploying, computerized billing systems.

Currently, the ISO 9002-certified company provides information systems management consulting, insourcing/outourcing of legacy mainframe application systems, project implementation services, and staff supplementation to Fortune 100 companies in the manufacturing, banking, brokerage, insurance, computer, and telecommunications industries.

On August 2, 1995, Olsten Corporation purchased IMI in a pooling-of-interests transaction valued at \$32.5 million.

Organization and Structure

IMI's organizational structure is designed to serve its large corporate customers through a branch organization, with 25 offices across the U.S. and in the U.K.

IMI has a network of offices located throughout North America and Canada in Irvine and Walnut Creek (CA), Denver (CO), Wilmington (DE), Tampa (FL), Norcross (GA), Lombard (IL), Boston (MA), Parsippany and Haddonfield (NJ), Hopewell Junction (NY), Raleigh (NC), Philadelphia (PA), Austin and Dallas (TX), Richmond, Virginia Beach, and Vienna (VA), and Markham, Ontario (Canada).

The company also provides services internationally through its subsidiary, Integrated Computer Technology (ICT). ICT is headquartered in Hertfordshire (U.K.) and has offices in Ireland, Belgium, and the Netherlands.

IMI is organized into the following eight practices:

- Helpdesk
- Testing
- Year 2000
- Data Warehousing

- SAP Implementation
- Managed Accounts
- Imaging Workflow
- Telecommunication Billing Systems

The company is further divided by five geographic regions:

- Northeast
- South
- Mid-America
- West
- U.K.

Each region is headed by a regional Vice President.

Company Strategy

IMI's strategy for the 1990s has five components:

- Provide world-class quality of services at a very competitive price
- Provide transitional outsourcing of applications through the use of CASE tools and maintenance methodologies in order to allow clients to focus on development of new systems and reduce maintenance costs
- Migrate applications from the old mainframe environment to the new open systems and client/server environments
- Design and develop new applications in both mainframe and open systems environments
- Design and develop global systems to accommodate multinational and multicurrency issues

During 1996 and over the next few years, IMI plans to expand its North American operations, adding offices so as to have one in every major U.S. city.

Financials

IMI estimates its calendar 1995 revenue was \$100 million.

Prior to being acquired by Olsten, IMI operated on a fiscal year end date of January 31. IMI reported revenue of \$47 million for the fiscal year ending January 31, 1995, prior to the acquisitions of Harvey Consultants, ARMS, and Systems Partners.

It is estimated that IMI's calendar 1996 revenue will approach \$200 million due to business growth and recent acquisitions.

Revenue Analysis by Product/Service

IMI's services revenue is currently derived approximately as follows:

Staff supplementation	45%
Project management	35%
Insourcing/Outsourcing	15%
Management consulting	5%
	100%

Market Financials

IMI serves a large number of Fortune 100 companies, as well as banks and utilities. Historically, more than 50% of IMI's assignments have been in the telecommunications industry.

In fiscal 1996, the company's year-to-date revenue has been derived from the following industries approximately as follows:

Telecommunications	53%
Manufacturing and distribution	27%
Banking/finance and insurance	20%
	100%

Geographic Markets

Historically, the majority of IMI's revenue has been derived from the U.S., with the greatest portion coming from the Northeast region.

Acquisitions

In September 1996, IMI acquired Harvey Consultants Limited, a U.K.-based consulting and staffing firm with annual revenue of \$22 million. The terms of the acquisition were not disclosed.

During 1996, IMI acquired the Orinda (CA)-based information technology division of Systems Partners, Inc., for approximately \$13 million in cash.

- Systems Partners is a Minneapolis (MN)-based engineering staffing firm.
- The IT division of Systems Partners provides client/server specialists.

In May 1996, IMI purchased the assets of ARMS Inc. of Haddonfield (NJ), a provider of software programming and computerization consulting services, for \$14.5 million.

- ARMS' systems integration division was not included in the purchase.
- ARMS had an estimated \$38 million in revenue for 1995.

Employees

As of October 1, 1996, IMI had approximately 2,200 employees, compared to approximately 800 employees in 1995.

Key Products and Services

IMI provides a range of IT consulting, project management, and management consulting services, working with clients in the design, development, and maintenance of their information systems. These services are provided on both a project and staff supplementation basis.

Project Management

IMI's project management services include a three-phase process:

- The creation of the project--Including the use of the LBMS Process Engineer as IMI's primary planning and support tool
 - The LBMS Process Engineer model creates, stores, and maintains project information in templates that set the basic requirements, procedures, and schedules for a given project type.
 - The LBMS Process Engineer includes built-in metrics to estimate project cost and duration and project-level risk.
 - The Hyperguide provides on-line documentation for each template as well as keeping track of techniques, tools, metrics, roles, and deliverables associated with a project.
 - Through IMI's network implementation of Process Engineer, Hyperguide is available through dial-up to any IMI project manager.
 - The Process Manager is a tool used by IMI to create or modify templates based on feedback from project managers.
- Project scheduling and control--The downloaded project is scheduled through the use of any standard scheduler product, such as Microsoft Project, TimeLine, or PMW.

- Review of project results by IMI corporate project support team members--Project results are sent to IMI for any needed modification of the base templates or metrics.

IMI provides project management services for various project types, including:

- Client/server
- Network and groupware
- Legacy and maintenance
- EDI and Internet
- Mobile computing
- SAP implementation
- On-line application processing
- Decision support
- Data warehousing

Year 2000 Conversion

IMI offers Year 2000 conversion services, working in conjunction with the client's MIS department to provide an economical assessment of options. IMI approaches these projects as an extension of the company's expertise in large-scale data conversion and legacy system upgrading.

IMI's Year 2000 assessment methodology includes three phases:

- Interview and survey of the system to identify system exposure
 - Determination of "first hits," the most imminent effects
 - Isolation of critical hits, those affecting revenue
 - Assessment and resolution of damage to data
- Use of source-code sampling, where applicable, to initiate a pilot program
- Evaluation and recommendation of possible approaches, including:
 - Toolset selection
 - Change control management
 - Data repair and/or conversion
 - Version upgrades for purchased software and languages
 - Program conversion to Year-2000 compliance
 - Testing

Risk Management

IMI offers risk management services using its risk assessment methodology, implementing major systems on time, on budget, and to user expectations.

The company provides risk assessment studies using a team of experts in risk-analysis methodology based on the functional decomposition of a project and its life cycle.

IMI's risk assessment studies are comprised of four components:

- Risk identification
 - Development of appropriate project components
 - Decomposition of items within components
 - Development of checklists and decision driver analysis
 - Assumption analysis
- Risk analysis
 - Project plan components
 - Staffing plan
 - Cost and scheduling
 - Network and facilities
 - Decision points
 - Quality factors
- Risk prioritization
 - Risk exposure
 - Risk leveraging
 - Risk reduction possibilities
- Comments and recommendations

Each study includes a report that addresses the project plan phases. Risks are aggregated into appropriate components, such as development, implementation, post-implementation, cost scheduling, and conversion.

- The report's risk-analysis section identifies and addresses factors within each component, describing, rating, ranking, and identifying possible solutions.
- A cross-referencing between components identifies the factors presenting the highest exposure to risk.
- Greater analysis and attention are given to the highest-rated risks.

Client/Server Testing

IMI offers an automated testing methodology, a controlled testing environment, and a regression suite to address the requirements of client/server development.

IMI's client/server testing methodology includes five phases:

- Analysis of project specifications to determine quality requirements at the onset of the project
- Identification of the total life cycle of the subject system
- Performance of triage
- Documentation of the testing environment and process
- Automation of testing tools
 - Analysis of project specification
 - Creation of test matrices
 - Creation and automation of testing scripts

The company's testing methodologies use the latest GUI testing tools and IMI's testing software, based on its new tool-independent technology called Universal Flat Data Tables (UFDt).

- Analysts use the UFDt model to extract all of the business rules from project specifications and enter them into data tables.
- This data is then used by Automated Testing Facility (ATF™) or other automated test tools to drive the test suites.
- As problem areas are uncovered in the software, the data table information is used to identify all of the relevant conditions.

Clients

Some of IMI's recent engagements include the following:

- For a leading U.S. airline, IMI used its Process Engineer to support the implementation of a multilevel IEF CASE-tool system.
- For a major telecommunications carrier, IMI managed a client/server development project.
- For a European insurance company, IMI reengineered the company's core legacy system.
- For IBM, IMI participated in the development of the IBM Visual Warehouse.
- For a regional telecommunications firm, IMI provided risk assessment services for a large operations support system designed to control the entire network.
- For a major systems integration firm, IMI provided risk assessment services for the \$22 million implementation of a comprehensive software package for long-distance carrier access billing.
- For a major telecommunications company, IMI is currently testing a client/server system comprising more than 300 different PC graphic screens connected to UNIX servers. These servers call on mainframe legacy systems composed of more than one million lines of COBOL code and containing databases representing more than ten million customers.

A sampling of IMI's clients include Ameritech, AT&T, Avon Products, Inc., Bank of Ireland, Bell Atlantic, Bellcore, Bell South, Bell of Pennsylvania, British Telecom, Century Cellular, Chase Manhattan Bank, Chemical Bank, GTE Mobilnet, Lehman Brothers International (London), MCI, NationsBank, Navistar International Transportation Corp., New Jersey Bell, New York State, New York Telephone, Northern Telecom, NYNEX, PLC, Southwestern Bell, Sprint, State of Louisiana, US West, and Wm. Low & Company.

Marketing and Sales

IMI markets its services through its direct sales force.

Alliances

IMI has affiliations with various software vendors, including:

- SAP--National Implementation Partner
- IBM--BESTeam Business Partner
- Wang--Software Business Partner for imaging and workflow
- Powersoft--Powerchannel Partner
- Lotus Notes--developer

The company also has affiliations with testing vendors, including Softbridge, Mercury, and AutoTester, Inc.

Competition

IMI faces its greatest competition from Tracom (a division of Amdahl), Computer Task Group, Keane, and CAP GEMINI America.

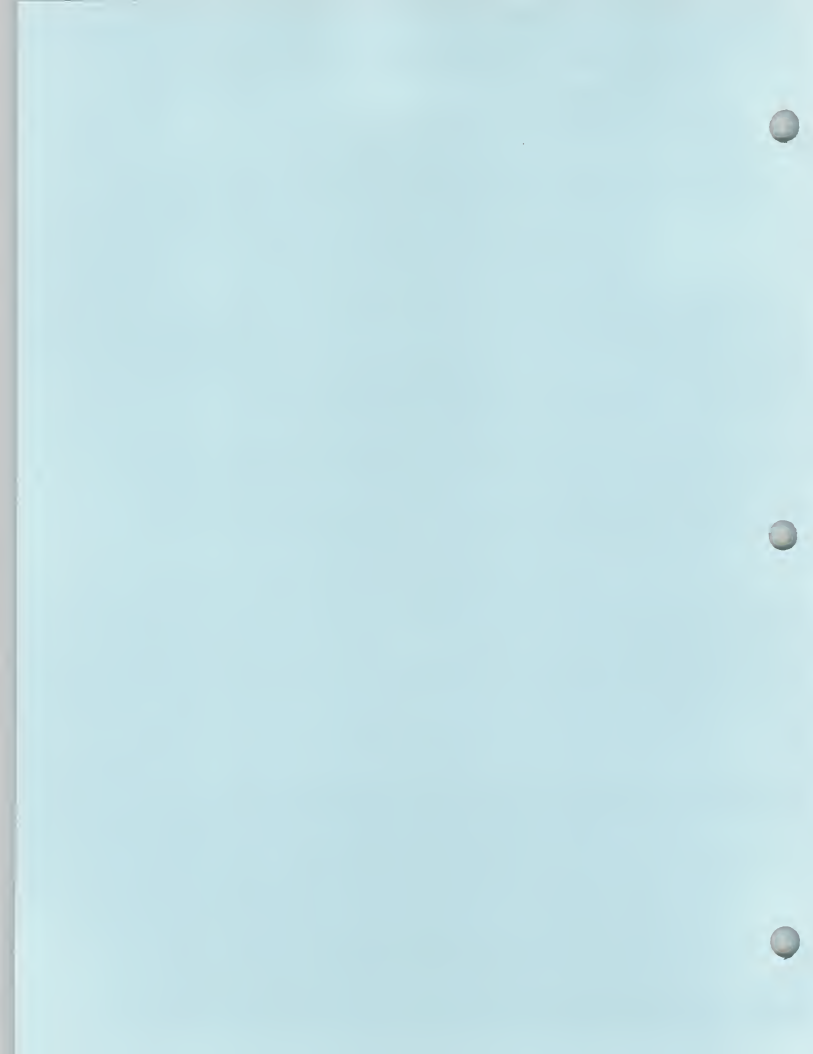
Parent Company

Olsten Corporation
175 Broad Hollow Road
Melville, NY 11747-8905
(516) 844-7800
Total Revenue (12/31/95): \$2,500,000,000

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Informix Corporation



UPDATED:
10/01/1997

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United Kingdom

Phone: (415) 926-6300 **Fax:** (415) 926-6593

Company Web Site:
<http://www.informix.com>

Select Title: Robert Finocchio
Status: Public
Employees: 3,489 (07/1997)
Revenue: \$ 663.9 mil

Year End Dec-1997

Summary Info**Key Points**

- Informix Corporation provides database technology to build, deploy, run, and evolve applications.
- In July 1997, Robert Finocchio was appointed to the position of President and CEO, replacing Phillip White. M. Finocchio subsequently replaced Mr. White as Chairman of the Board when Mr. White resigned the position.
- Phillip White was replaced primarily due to the \$140 million loss suffered during Informix's first quarter of 1997.
- Prior to the appointment, Mr. Finocchio was president of 3Com Corporation's Systems division.
- In July 1997, Informix announced the availability of INFORMIX®-Data Director™, a model-driven data management platform for Visual Basic developers.
- In July 1997, the company outlined plans for a targeted Windows NT strategy to bring Windows NT into the enterprise running on Intel Architecture servers.
- In June, 1997, Informix and EDS signed a strategic worldwide agreement for joint development and marketing activities on industry-specific solutions and services offerings based on Informix products.
- In May 1997, Informix announced a new organizational structure focused around market and technology team.
- In May 1997, the company also announced a number of initiatives to change its sales and marketing organization in order to improve customer focus and eliminate duplication.
- In May 1997, Informix established a technical competency center at The Baan Company's facilities in The Hague (the Netherlands). The center, part of Informix's Baan Business Unit, will be staffed jointly by Baan Informix and will provide performance engineering, product enhancements, customer benchmarks, and technical sales support.
- In March 1997, the company announced its Universal Tools strategy to enable developers using tools from leading vendors to use INFORMIX-Data Director to easily build high performance, extensible applications for INFORMIX-Universal Server.
- In February 1997, Informix announced an agreement to acquire CenterView Software, Inc., a provider of software that enables database application development.
- In November 1996, the company announced its new line of business dedicated to the government marketplace. A new program, headed by Grant Osasa, expands Informix's focus on the federal government to include state and local markets.
- In November 1996, Informix formed a new business development unit to focus specifically on PeopleSoft, one of Informix's key client/server applications partners. The unit will concentrate on joint development activities and also focus on increasing market presence for the Informix/ PeopleSoft solution globally.
- In February 1996, Informix acquired Illustra Information Technologies, Inc., a supplier of dynamic content management database software and tools.

Company Description

Informix Software (Informix), the operating subsidiary of Informix Corporation founded in 1980 by Roger Sippl and L. King, designs, develops, manufactures, markets, and supports distributed database management systems and object-

oriented graphical- and character-based applications development tools for delivering information to most significant desktop platforms.

In 1996, the company announced its commitment to the enterprise computing marketplace and the NT-based, desktop medium systems reseller market. The company also offers training, consulting, and maintenance services to its custo

Structure and Operations

Informix is currently undergoing certain restructuring and organizational changes to improve operations, build financ stability, and more clearly articulated its market position and strategy:

- During the second quarter of 1997, the company reduced its workforce by approximately 440 employees, and h plans to further reduce personnel in the third quarter. Reduction are expected to be approximately 10 to 15 per of the company's existing workforce, with the primary reduction being in sales and marketing.
- European and U.S. administrative and finance functions, technical support, and operations will be centralized better control and cost-effectiveness.
- Informix's Information Superstores will be resized, repositioned, and renamed, becoming part of the company's consulting practice business.

In May 1997, Informix announced a new organizational structure focused on market and technology teams. Informix's business units are as follows:

- DataBlade Developers, headed by Tony Rodoni
- Data Warehousing, under the direction Tony Rodoni
- Internet/intranet, under the direction of John Bartlett
- Workgroup Solutions, headed by Brett Bachman

The company's key corporate executives are listed below:

Exhibit 1

Informix Software Key Executives

Name	Title
Robert J. Finocchio	Chairman, CEO, & President
Mike Saranga	Sr. VP, Product Management and Development
Paula Hawthorn	VP, Tools Development
Stephen E. Hill	VP, Advanced Technology
Michael Stonebraker	VP and CTO
Jeffrey V. Hudson	VP, Business Development
Kay Hart	VP, Corporate Communications
Tony Rodoni	GM, Data Warehouse Business Development Unit
Brett Bachman	GM, Enterprise Products

Source: Informix Sof

In May 1997, the company announced a number of initiatives to change its sales and marketing organizations, intend

improve customer focus and eliminate duplication.

- Jeff Hudson, heading Worldwide Marketing, is responsible for increasing the company's global position and
- Jeff Hudson, heading Business Development and Product Marketing, is leading business development in key market areas and determines the direction and scope of the company's product plans.

Informix now sells its products through four internal sales organizations—The Americas; Europe, Africa, Middle East Asia/Pacific; Japan; and Federal.

- The Americas sales organization, led by Ron Alvarez and headquartered in California, has sales offices in the Canada, Mexico, and Brazil and uses independent distributors to sell products throughout North and South America. Reporting to Ron Alvarez are:
- The Vice President, U.S. Sales, responsible for sales in the U.S., with a specific concentration on Fortune 100 accounts
- Don Hunt, Vice President of Eastern Sales, responsible for sales offices based in Florida, Georgia, Massachusetts, Maryland, New Jersey, and New York
- The Vice President of the Americas lines of business, sales, and marketing, with responsibility for industry marketing and sales to telecom, and industry marketing to the finance, manufacturing, and retail lines of business
- The Europe, Africa, Middle East, and Asia/Pacific sales organization, headed by Jeff Hudson, has sales offices in European countries and uses independent distributors to sell products throughout the rest of Europe, the Middle East, and Africa.
- The Japan sales organization, headquartered in Tokyo and led by Ed Winder, has sales offices in 10 countries also uses independent distributors to sell products.
- The Federal sales organization, headed by Grant Osasa

Informix has U.S. regional offices in Albuquerque (NM), Atlanta (GA), Austin (TX), Bentonville (AR), Boston (MA), Brisbane (CA), Chicago (IL), Cincinnati (OH), Dallas (TX), Denver (CO), Detroit (MI), Downers Grove (IL), Houston (TX), Indianapolis (IN), Irvine (CA), Lenexa (KS), Los Angeles (CA), Menlo Park (CA), Minneapolis (MN), New York (NY), Phoenix (AR), Pittsburgh (PA), Portland (OR), Rockville (MD), Sacramento (CA), Salt Lake City (UT), Sarasota (FL), Seattle (WA), Somerset (NJ), St. Louis (MO), Tampa Bay (FL), and Washington (D.C.)

International offices are in Argentina, Australia, Austria, Belgium, Brazil, Canada, the Czech Republic, France, Germany, Hong Kong, Ireland, Italy, Japan, the Republic of Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, the People's Republic of China, Philippines, Poland, Portugal, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, the U.K.

Employees

As of December 31, 1996, Informix Corporation had 4,491 employees, segmented as follows:

Sales, marketing, and support	2,939
Research and development	967
Operations	89
Administration and finance	496
	4,491

As of July 1, 1997, the company had approximately 4,190 employees worldwide.

Company Strategy

Informix's primary strategy is to address customer needs through core product technology that delivers real-world

solutions. The goal is to deliver the right technology to customers worldwide, through the company's own direct sales efforts as well as distribution channels and strategic partnerships.

Market Strategy

Informix has a multiple-channel distribution strategy to maintain broad market coverage and product availability. The company combines its direct sales efforts with a number of partnerships and alliances with OEMs and other resellers deliver the right combination of hardware, software, and service to its customers. The company employs a user-based pricing that ties prices of products directly to the value customers derive from using Informix software.

Product Strategy

Informix believes in making strategic investments in leading technology companies in an effort to complement its own product development strategies. Informix's product strategies are focused on two key areas:

- Continuing the Dynamic Scalable Architecture™ (DSA) database technology launch by working on new release the OnLine Dynamic Server
- Bringing to market the next-generation database application tools with the release of the new object-oriented application development technology
- In March 1997, the company introduced INFORMIX-Data Director and announced the company's Universal To strategy. The Universal Tools strategy will enable developers working on open development environments to u INFORMIX-Data Director to easily build high performance, extensible applications for INFORMIX-Universal Server. Components of the Universal Tools Strategy include:
- INFORMIX-Data Director, the company's plug in modules, provide developers using leading development environments the ability to easily develop distributed client/server applications for Informix's family of databa
- Enhancements for INFORMIX-New Era™, the company's object-oriented client/server development tools, to provide easy development of INFORMIX-Universal Server applications
- New capabilities that will enable customers to enhance their existing Informix-4GL applications.

Acquisitions

In February 1997, Informix announced an agreement to acquire CenterView Software, Inc., a provider of database application development software.

- At the time of the acquisition, CenterView had 13 employees who were relocated to Informix's Menlo Park (CA) development facility.
- According to the terms of the agreement, Informix purchased 100 percent of CenterView's outstanding stock in cash transaction that was accounted for as a purchase business combination.
- In connection with the acquisition, Informix wrote off approximately \$7 million of in-process R&D during the fi quarter of 1997.

In February 1996, Informix acquired Oakland (CA)-based Illustra Information Technologies, Inc., an object-relational database supplier.

- Informix issued approximately 12.6 million shares of common stock to acquire all outstanding shares of Illustra additional 2.4 million shares of Informix stock were reserved for issuance in connection with the assumption of Illustra's outstanding stock options. The acquisition was accounted for as a tax-free pooling of interest.
- Illustra supplies dynamic content management database software and tools for managing complex data in the Internet, multimedia/entertainment, financial services, earth sciences, and other markets.
- Included in the acquisition was Illustra's DataBlade management system modules which Informix has since integrated into its own Dynamic Scalable Architecture, Informix's core parallel database technology.
- Illustra has become a wholly owned subsidiary of Informix Corporation.

Financials

Total 1996 revenue reached \$939.3 million, a 32% increase over 1995 revenue of \$714.2 million. Net income remained constant, with \$97.8 million in 1996 compared to \$97.6 million in 1995. A five-year financial summary is shown in Ex

2.

Exhibit 2

Informix Software Five-Year Financial Summary (\$ Millions, except per-share data)* (Fiscal Year)

Item	1996	1995	1994	1993	199
Revenue	\$939.3	\$714.2	\$470.1	\$353.1	\$2
• Percent change from previous year	32%	52%	33%	25%	
Income before taxes	\$148.2	\$152.8	N/A	N/A	\$
• Percent change from previous year	(6%)	N/A	N/A	N/A	3
Net income	\$97.8(a)	\$97.6	\$61.9	\$55.0	\$
• Percent change from previous year	—	58%	13%	15%	2
Earnings (loss) per share (b)	\$0.63	\$0.65	\$0.43	\$0.40	\$
• Percent change from previous year	(3%)	51%	8%	5%	2

* Data prior to 1995 has been restated to reflect the acquisition of *Illustra Information Technologies, Inc.* from its inception d of July 31, 1992.

(a) Includes *Illustra* merger expenses of \$5.9 million.

(b) Per-share data restated to reflect a two-for-one stock split which was effective June 26, 1995.

Research and development expenditures were approximately \$120.2 million (13% of revenue) in 1996, compared to \$8 million (12% of revenue) in 1993 and \$60.4 million (13% of revenue) in 1994.

Interim Results

Revenue for the six months ending June 29, 1997 was \$298.4 million, a decrease of 31% from revenue of \$430.3 million during the same period in 1996. Net losses for the period were \$282.7 million, compared to net income of \$37.5 million during the same period the previous year. Losses included one-time charges of \$7.0 million related to the acquisition of CenterView Software and \$30.5 million related to the write-off of goodwill and other long-term assets

- North American revenue was \$148.0 million for the period, compared to \$174.4 million during the same period 1996.
- European revenue was \$85.8 million, compared to \$173.9 million the previous year.
- Intercontinental revenue was \$64.6 million for the period, compared to \$82.0 million during the same period in 1996.
- **Revenue Analysis by Product/Service**

Approximately 75% of Informix's 1996 revenue was derived from licensing fees for its software and 25% from its services. In 1996, database servers, connectivity, and tools products accounted for substantially all Informix's license revenue. A three-summary of source of revenue is shown in Exhibit 3. Exhibit 3

Informix Software Three-Year Source of Revenue Summary (\$ Millions) Fiscal Year

Products/Services	1996 Revenue \$	1996 Percent of total	1995 Revenue \$	1995 Percent of total	1994 Revenue \$	1994 Percent of total
License fees	\$708.0	75%	\$539.7	76%	\$363.8	78%
Services	231.3	25%	174.5	24%	104.9	22%
Total	\$939.3	100%	\$714.2	100%	\$468.7	100%

Source: Informix Sof

License revenue growth in 1996 is attributed to strong demand for Informix's server products, especially the INFORM OnLine Dynamic Server™. Revenue from the company's database tool products fell from 1995 to 1996 due to competition and an increase in sales to resellers, which have traditionally concentrated on purchases of database server products.

Service revenue reflected continued growth of the company's installed customer base and resulting renewal of maintenance contracts and increased consulting revenue.

Market Financials

Informix's customers consist primarily of users, computer original equipment manufacturers (OEMs), value-added resellers (VARs), systems integrators, distributors, and dealers. The company markets its products directly to users through its sales force and indirectly to users through OEMs, VARs, distributors, dealers, and systems integrators.

Major market sectors served include: finance, manufacturing/supply chain, retail, telecommunications, travel, health insurance, energy, media, transportation, and government. Exhibit 4 shows INPUT's estimate of Informix's revenue by market.

Exhibit 4

Informix Software Revenue by Market Sector

Market Sector	Percent of Total
Banking & Finance	19%
Discrete Manufacturing	12%
Government	10%
Insurance	10%
Process Manufacturing	9%
Retail Distribution	8%
Telecommunications	7%
Health Care	6%
Transportation	5%
Utilities	5%
Other	9%
Total	100%

Source: INPUT esti

Geographic Markets

In 1996, approximately 58% of Informix's net revenue was derived from sales to foreign customers, compared to 58% in 1995 and 54% in 1994.

Informix's distribution markets are organized into three general markets— North America, Europe (including Middle and Africa), and the Intercontinental Group (including Latin America, Japan, and the Asia/Pacific region). In 1996, approximately 42% (\$392.1 million) of Informix's 1996 revenue was derived from North America, 39% (\$369.5 million) from Europe, and 19% (\$177.7 million) from the Intercontinental region.

Exhibit 5 displays a three-year geographic source of revenue summary.

Exhibit 6 provides INPUT's estimate of Informix's revenue for European country markets.

Exhibit 5

**Informix Software
Three-Year Geographic Source of Revenue Summary
(\$ Millions) Fiscal Year**

Geographic Market	1996	1995	1994
North America	42%	42%	46%
Europe	39%	38%	38%
Intercontinental	19%	20%	16%
Total	100%	100%	100%

Source: Informix Sof

Exhibit 6

**Informix Software
Revenue by European Country**

Country	Percent of Total
U.K.	32%
Germany	28%
France	12%
Italy	7%
Switzerland	5%
Netherlands	4%
Spain	3%
Sweden	2%

Rest of Europe	7%
Total	100%

Source: INPUT esti

Key Products and Services

Informix's product offerings include database servers and application development tools for creating client/server on-line transaction processing (OLTP) production applications, decision support systems, and ad-hoc query interfaces and connectivity software.

The company's current software product offerings are summarized in Exhibits A, B, C, and D.

Database Servers

The following is a list of Informix's principal server products:

- INFORMIX-Universal Server, released in December 1996, is an object relational database server based on Informix's Dynamic Scalable Architecture. INFORMIX-Universal Server allows customers to manage tradition data types alongside new kinds of data, such as audio, video, text, and images, through the use of DataBlade® modules.
- DataBlade® modules are reusable, plug-in object extensions that provide data storage and management functionality for non-traditional data types.
- DataBlade modules available from Informix include: INFORMIX-Spatial, INFORMIX-TimeSeries, INFORMIX Video Foundation, and INFORMIX-Web.
- INFORMIX-OnLine Workgroup Server is a database management system designed specifically for workgroups. This product is based on the Company's Dynamic Scalable Architecture and comes bundled with Netscape FastTrack Server. It became available in the third quarter of 1996.
- INFORMIX-OnLine Extended Parallel Server is a high-performance, scalable database server designed to support large database environments for OLTP, data warehousing, imaging, document management, and workflow database applications.
- INFORMIX-OnLine Dynamic Server is a multithreaded parallel database server for managing larger, more complex business-critical databases.

Connectivity Products

Key connectivity products offerings include:

- INFORMIX-Universal Web Connect™ is a tool that provides high performance connectivity between Web servers and databases.
- INFORMIX-Enterprise Gateway™, introduced in January 1995, gives users SQL and Remote Procedure Call (access to over 60 relational and non-relational database management systems and file structures residing on than 35 hardware platforms and operating systems.
- INFORMIX-Enterprise Gateway Manager™, a connectivity tool allowing applications running on UNIX, Microsoft Windows, or Windows 95 to access data sources via loadable gateway drivers. Informix offers gateway drivers for Oracle and Sybase databases.
- INFORMIX-Enterprise Gateway for EDA/SQL allows tools and applications running on UNIX and Microsoft Windows to access data located anywhere on the enterprise.
- INFORMIX-Enterprise Gateway with DRDA is a UNIX-based connectivity tool allowing interoperability to IBM databases such as DB2, DB2/VM, and DB2/400 from Windows and UNIX clients. INFORMIX-Gateway with DRDA allows applications built with Informix application development tools to access and modify information in Distributed Relational Database Architecture™-compliant database management systems.
- INFORMIX-ESQL for C and COBOL, embedded SQL products permit developers to take advantage of SQL technology while building applications in C or COBOL.
- INFORMIX-CLI is a library of low-level functions that provide high-performance direct access to Informix databases from applications built in C or other third-generation languages. INFORMIX-CLI is compliant with

Microsoft's ODBC specifications.

Enduser Information Access Tools

End-user access tools include:

- INFORMIX-NewEra ViewPoint™ — Graphical database access tool designed to provide the user easy access to database.

Application Development Tools

Informix database tools include the following:

INFORMIX-Data Director plug-in modules, providing developers that use leading development environments with model-driven, drag-and-drop functionality, the ability to easily develop scalable, distributed client/server applications for Informix's family of databases. Data Director is a model-driven data management platform supported by leading companies including Microsoft, Symantec, JavaSoft, Powersoft, Forte, and Seagate Software.

- INFORMIX-Data Director™ for Visual Basic is a model-driven data access and data management platform that enables application developers to rapidly prototype, build, and extend workgroup and enterprise applications.
- INFORMIX-Data Director for Visual Basic initially supports INFORMIX-OnLine Workstation, INFORMIX-OnLine Workgroup Server, and INFORMIX-OnLine Dynamic Server.
- The INFORMIX-Data Director option is priced at \$200 per user, or \$6,000 per CPU in an Internet environment and is added on to the customer's INFORMIX-OnLine database server license.
- INFORMIX-Data Director™ for Java is a Java development component enabling developers to build database-aware Java applets for Informix's family of database servers.
- INFORMIX-NewEra™ is a graphical, object-oriented development environment designed for creating enterprise-wide multitier client/server database applications.
- INFORMIX-NewEra features a fourth-generation object-oriented programming language, reusable class library, application partitioning, and flexible application deployment, and supports open connectivity to Informix and non-Informix databases.
- INFORMIX-NewEra is currently available for Microsoft Windows and OSF Motif™.
- INFORMIX-NewEra™ Pro is a suite of graphical development and database administration tools for the creation of small- to mid-range database applications.
- INFORMIX-Mobile, using INFORMIX-NewEra applications, is a message-based system for remote access to standard LAN-based applications such as e-mail and fax and sales force automation.
- INFORMIX-4GL product family—A comprehensive fourth-generation application development and production environment that provides power and flexibility to application development needs. The INFORMIX-4GL product family is comprised of three core products: INFORMIX-4GL Compiled, INFORMIX-4GL Rapid Development System, and INFORMIX-4GL Interactive Debugger.
- INFORMIX-MetaCube™ — An on-line analytical processing engine that automatically preconsolidates data and provides a multidimensional view of data. The INFORMIX-MetaCube product family also includes:
 - MetaCube Analysis Engine, an ROLAP engine that provides the backbone for high-performance data warehouse applications
 - MetaCube Explorer, an ad-hoc decision support tool for end users
 - MetaCube Warehouse Manager, a graphical tool for administering the "metadata"
 - MetaCube Warehouse Optimizer to improve query performance and overall usability of the data warehouse
 - MetaCube Scheduler for batch processing
 - MetaCube QueryBack for running queries in the background
 - MetaCube Aggregator for creating and maintaining aggregates in a data warehouse
 - MetaCube for Excel, which enables data warehouse analysis in an Excel spreadsheet environment
 - MetaCube for the Web, which brings MetaCube analysis capabilities to intranets

Third-Party Development Tools

Informix has over 200 Informix InSync partners that offer a variety of products that expand the capabilities of the Informix application development environment in the following categories:

- Analysis and design
- Connectivity and APIs
- Database administration tools
- Development languages
- Form painters and code generators
- Imaging tools
- Lifecycle management
- Office automation
- Publishing
- Report writers and query tools
- Specialty tools
- Statistical analysis
- Windows end-user tools
- Windows application development tools

Informix Software Products

Exhibit A

Database Servers

<ul style="list-style-type: none"> • INFORMIX®- Universal Server • DataBlade® Modules • INFORMIX-OnLine Dynamic Server™ • INFORMIX-OnLine Workgroup Server • INFORMIX-OnLine Extended Parallel Server (OnLine XPS) • INFORMIX-OnLine/Secure Dynamic Server™ • INFORMIX-OnLine • INFORMIX-OnLine/Secure • INFORMIX-OnLine/Optical • INFORMIX-OnLine Workstation • INFORMIX-SE • C-ISAM® 	<p>Object relational database server</p> <p>Plug-in object extensions for non-traditional datatypes</p> <p>Next-generation parallel processing database server</p> <p>Database management system</p> <p>Scalable database server</p> <p>Has added features for multilevel secure applications</p> <p>High-performance OLTP database server</p> <p>Has added features for multilevel secure applications</p> <p>Allows optical disk systems to store binary large objects</p> <p>Single-user platform for development of workgroup applications</p> <p>SQL-based database engine for smaller applications</p> <p>Library of C functions</p>
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Exhibit B

End-User Access Tools

<ul style="list-style-type: none"> • INFORMIX-NewEra ViewPoint 	<p>Enables users to create their own decision-support applications</p>
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Exhibit C

Connectivity Products

<ul style="list-style-type: none"> • INFORMIX-Enterprise Gateway™ Manager • INFORMIX-Enterprise Gateway for EDA/SQL • INFORMIX-ESQL for C and COBOL • INFORMIX-CLI • INFORMIX-Universal Web Connect • INFORMIX-NET • INFORMIX-Gateway with DRDA • INFORMIX-TP/XA • INFORMIX-DCE/NET 	<p>Connectivity tool for UNIX, Microsoft Windows, or Windows 95 applications</p> <p>Allows tools and applications running on UNIX and Microsoft Window to access data anywhere on the enterprise</p> <p>Embedded SQL products</p> <p>Library of low-level functions</p> <p>Tool that provides high-performance connectivity between Web server and databases</p> <p>Allows Informix database applications to be implemented with client/server architecture</p> <p>Integrates IBM relational databases with Informix applications on op systems</p> <p>Links INFORMIX-OnLine to X/Open XA</p> <p>Provides distributed computing services</p>
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Exhibit D

Application Development Tools

<ul style="list-style-type: none"> • INFORMIX-NewEra • INFORMIX-NewEra ViewPoint Pro • INFORMIX®-Data Director™ for Visual Basic • INFORMIX-Data Director for Java • INFORMIX-MetaCube™ Product Suite • MetaCube Analysis Engine • MetaCube Explorer • MetaCube Warehouse Manager • MetaCube Warehouse Optimizer • MetaCube Scheduler • MetaCube QueryBack • MetaCube Aggregator • MetaCube for Excel • MetaCube for the Web • INFORMIX-4GL • INFORMIX-4GL Rapid Development System (RDS) • INFORMIX-4GL Interactive Debugger • INFORMIX-4GL Compiled • INFORMIX-4GL Forms 	<p>Next-generation client/server environment</p> <p>Graphical tools for small/mid-range applications</p> <p>Model-driven data access and data management platform</p> <p>Java development component</p> <p>Family of decision-support software for large-scale data warehouses</p> <p>A ROLAP engine that provides the backbone for high-performance data warehouse applications</p> <p>An ad hoc decision support tool for end users</p> <p>A graphical tool for administering the "metadata"</p> <p>For improved query performance and overall usability of the data warehouse</p>
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	<p>For batch processing</p> <p>For running queries in the background</p> <p>For creating and maintaining aggregates in a data warehouse</p> <p>Enables data warehouse analysis in an Excel spreadsheet</p> <p>Analysis capabilities for intranets</p> <p>Fourth-generation programming language</p> <p>Fourth-generation language with pseudo-code system</p> <p>Works with Rapid Development System to provide windowed environment for interactive debugging</p> <p>4GL compiler</p> <p>Code generator and form painter for data applications</p>
<ul style="list-style-type: none"> • INFORMIX-Menus • INFORMIX-4GL/GX • INFORMIX-4GL/RF • INFORMIX-TP/Toolkit • INFORMIX-HyperScript Tools • INFORMIX-SQL • INFORMIX-ESQL/C • INFORMIX-ESQL/COBOL • INFORMIX-Ada/SAME 	<p>Creates menus that can access other submenus, programs</p> <p>Works with 4GL RDS to run character-based applications in graphical environments</p> <p>Allows recompilation of INFORMIX-4GL RDS applications to run over radio frequency network</p> <p>Allows INFORMIX-4GL applications to run in conjunction with a transaction manager</p> <p>Visual programming environment used to create applications in Windows, UNIX, and Macintosh</p> <p>Menu-driven SQL RDBMS for UNIX and DOS</p> <p>Interface to INFORMIX-SQL database for C programmers</p> <p>Interface to INFORMIX-SQL databases for COBOL users</p> <p>SQL module language compiler</p>

Maintenance, Consulting, and Services

Informix offers two levels of software maintenance:

- Standard maintenance includes regular product updates, unlimited telephone support, and Tech Notes (a quarterly publication from Informix to help customers with troubleshooting).

- Regency Support offers a higher level of service to customers with complex, on-line transaction-processing-base applications. Through Regency Support, customers have access to a dedicated engineer who is familiar with the application and to an on-line bulletin board.

Informix's Professional Services organization provides software clients with the following services:

- Consulting services support the analysis, design, implementation, and production phases of database applications.
- Training courses cover every product offered by Informix and are tailored to specific skill levels/job functions. The courses are available at Informix Training Centers in cities across the U.S.

Clients

Informix's major clients include Visa International, United Airlines, Holiday Inn, Great Britain's Royal Air Force, Top Appliance City, Sears Merchandise Group, GTE Telephone Operations (GTE), Freeport-McMoRan Inc., American Automobile Association (AAA), Home Depot, Wal-Mart Stores, American Express Travel-Related Services, Cray Systems, Kuwait Petroleum, Occidental Chemical Corp., Carrefour, American International Airways, Hussmann Corp., Swissair, and the United Kingdom's Royal Navy.

Marketing and Sales

In the U.S., Europe, and Latin America, the company distributes its products through direct user licensing, OEMs, Vendors, addressing specific markets, systems integrators, distributors, and dealers.

In other foreign countries, the company licenses its products to users primarily through VARs, distributors, and OEMs.

In an attempt to maintain broad market coverage and product availability, the company has chosen a multiple-channel distribution strategy. Discount policies and reseller licensing programs are designed to support each channel of distribution.

Informix has four separate internal sales organizations:

- The Americas sales organization, with approximately 1,549 employees as of December 31, 1994, has sales offices in major cities throughout the U.S., Canada, Mexico, and Brazil.
- The Europe, Middle East, Africa, Asia/Pacific sales organization, with approximately 1,291 employees as of December 31, 1996, has sales offices in 15 European countries.
- The Japan sales organization, had approximately 99 employees as of December 31, 1996.
- The Federal sales organization

Alliances

Informix has established relationships with OEMs, including Amdahl, Compaq, Dell, Digital, Hewlett-Packard, Intel, NCR, NEC, Siemens Nixdorf Information Systems, and Tandem. The company also has established relationships with Baan, PeopleSoft, Lawson Software, Silicon Graphics, Netscape, Sun Microsystems, Virtual Solutions, Saba, Forte, and Seagate.

The Informix Solutions Alliance program encompasses a variety of technology partners, and is segmented into four groups:

- Software Application Partners—More than 4,000 application solutions providers, including Netscape, PeopleSoft, and SAP, provide solutions to the retail, telecommunications, insurance, banking and financial services, hospital, entertainment, supply chain, and health care industries.
- Service Partners—Includes consulting and systems integration partners
- Software Tools Partners—Partnerships with companies such as Baan offering many database development solutions.
- Hardware and Operating Systems Partners

A sampling of Informix's recent alliances include the following:

In June, 1997, Informix and EDS signed a strategic worldwide agreement to leverage each others' products and services, an agreement to jointly identify and pursue new business opportunities for Informix's relational and object-relational database technologies. The companies will work on joint development and marketing activities on industry-specific solutions and services offerings based on Informix products.

- Informix will become a preferred EDS database vendor enabling EDS to recommend the use of Informix products to EDS customers.
- EDS will purchase Informix's products for internal use and will become a preferred integration consulting provider for a number of Informix's internal and external projects.
- Informix will also outsource the operation of its Lenexa (KS)-based TeleBusiness Call Center to EDS.
- EDS will become a key participant in the Informix information Superstores.

In April 1997, Informix and Symantec Corporation, a provider of Java development environments, entered into a strategic alliance to develop and market solutions enabling developers to rapidly create and deploy next-generation enterprise applications.

- According to the terms of the agreement, both companies will integrate and market each other's leading products: professional Web and enterprise Java developers worldwide.
- Informix has adopted Symantec Visual Cafe Pro as the premier Java development tool for Informix OnLine and INFORMIX-Universal Server databases. Symantec has adopted INFORMIX-Universal Server as its premier database solution, and will replace Sybase SQL Anywhere, bundling INFORMIX-Universal Server with future versions of Symantec Visual Cafe Pro.

Informix and PeopleSoft have an established partnership whereby the two companies combine Informix's database services with PeopleSoft's financial, human resource, and manufacturing applications.

- In November 1996, Informix formed a new PeopleSoft business development unit focused on joint development activities and increasing market presence for the Informix/ PeopleSoft solution globally.
- Customers of the Informix/PeopleSoft solution include Barnes & Noble, Budget Rent-a-Car, The Gap, Home Depot and PepsiCo.

Informix and SAP recently celebrated their 1,000th Informix SAP R/3 customer installation for enterprise application announced more than 100 Informix SAP R/3 sites on Windows NT during the first six months of sales.

The Baan/Informix partnership, established in 1994, covers working relationships at multiple levels— from sales support through executive management.

- During the first quarter of 1997, Informix became the number-one database sold by Baan in North America.
- In January 1997, the two companies entered into a technology agreement under which Baan uses commercial available RDBMS technology from Informix to replace its own Tribase database.

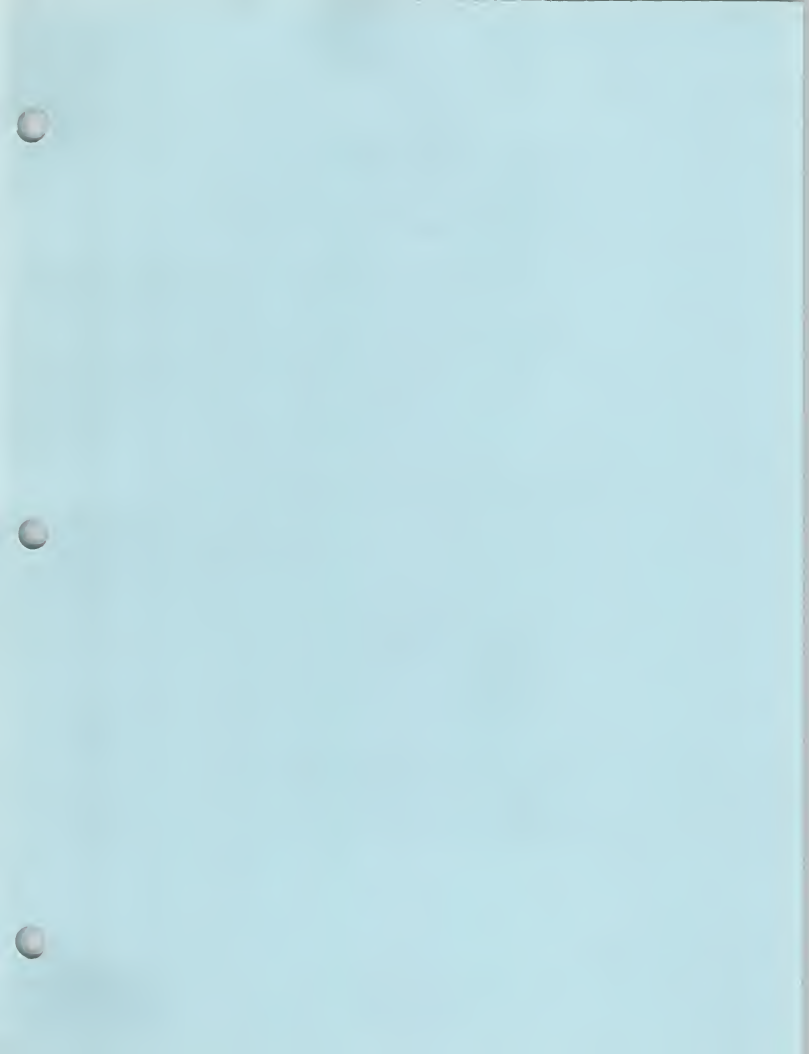
Informix and Lawson Software have an agreement to embed INFORMIX® OnLine Dynamic Server™ in Lawson's INSI products. This is the first instance where Lawson has embedded a third-party database in its software.

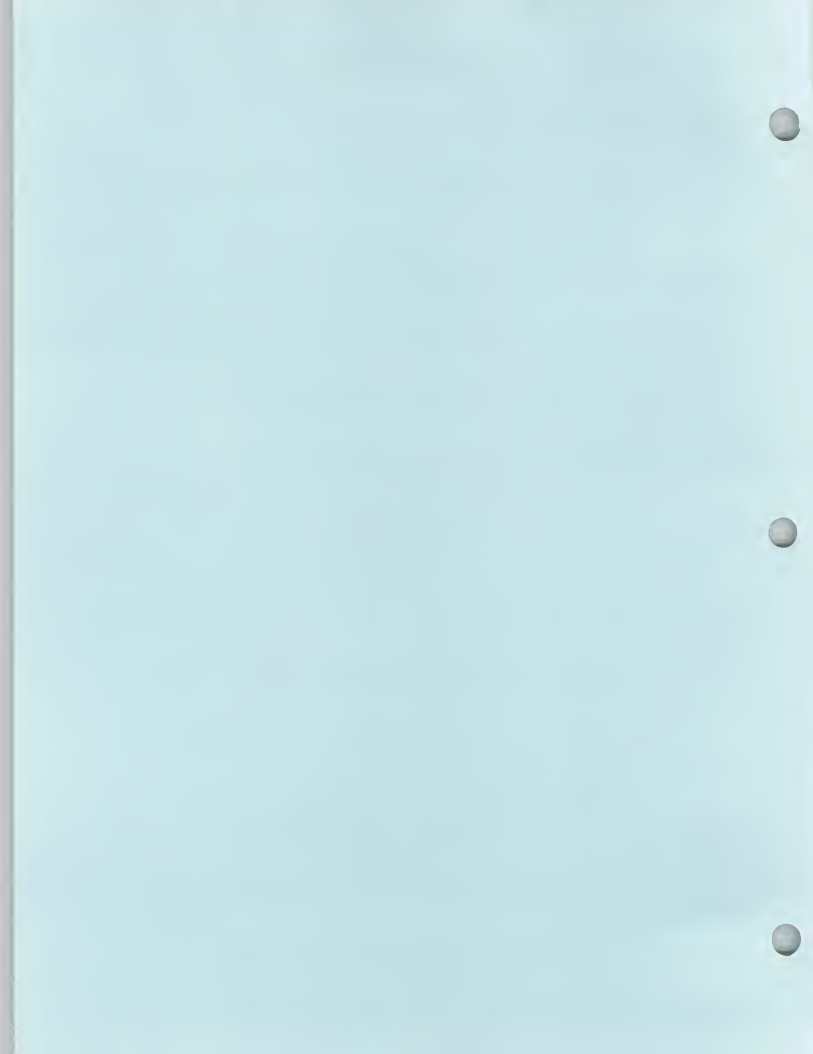
Competition

Informix's primary competitors are Oracle Corporation, Sybase Corporation, IBM Corporation, Microsoft Corporation, ASK Group, Inc. (Computer Associates International, Inc.), Progress Software, and, to some degree, suppliers of third-party tools such as Gupta Technologies, Powersoft Corporation, Uniface Corporation, and Unify Corporation.

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**Infoseek Corporation****UPDATED:**
09/01/1996**Headquarters**2620 Augustine Drive
Suite 250
Santa Clara, CA 85054
U.S.**Phone:**
(408) 567-2700**Fax:**
(408) 986-1889**Company Web Site:**
<http://www.infoseek.com>**Summary Info**

Chairman:	Steven Kirsch
President/CEO:	Robert Johnson
Status:	Public
Employees:	113 (12/1996)
Revenue:	\$ 15.1 mil
Year End	Dec-1996

Key Points

- Infoseek Corporation develops and provides branded Web-based navigational services that help users access and personalize the resources of the Internet.
- In August 1996, Infoseek unveiled a beta version of Infoseek Ultra, a new search technology that provides a virtual real-time index of the Internet.
- In May 1996, Infoseek introduced Infoseek Personal, a free World Wide Web service that allows users to create a Web page unique to their personal interests.
- In April 1996, Netscape Communications implemented a new "Net Search" display that redefined Infoseek's role as a premier provider of navigational service, along with four other providers.
- From January to April of 1996, Infoseek was the sole premier provider of navigational service for Netscape Communications.
- In December 1995, Robert Johnson joined Infoseek as President and CEO.

Company Description

Infoseek was formed in January 1994 to develop and provide Internet and World Wide Web navigational services.

Infoseek's business relies on three core elements that comprise the company's mission: rich and relevant content, powerful and easy-to-use search technology, and customer service.

- Rich and relevant content--Infoseek strives to maintain the richest and most relevant content collections available on the Web.
- Powerful and easy-to-use search technology--Infoseek's technology provides search precision while remaining easy to use.
- Customer service--Infoseek is a service organization that provides access to information over the Internet; as a result, the company's infrastructure, both in computing and human terms, is dedicated to providing the best possible service to users.

In June 1996, Infoseek made an initial public offering of stock that generated approximately \$38.6 million for the company. Proceeds from this offering will be used for royalty payments due for technology licensing, general corporate purposes, and the expansion of Infoseek's product development and sales and marketing organizations and working capital.

Organization and Structure

Infoseek's key executives are listed below:

**Infoseek Corporation
Key Executives**

Name	Title
Steven T. Kirsch	Chairman
Robert E.L. Johnson	President & CEO
James Desrosier	VP & Chief Marketing Officer
Leonard J. LeBlanc	EVP Finance & CFO
Craig Forman	VP Product Management
John Nauman	VP Engineering
Andrew E. Newton	VP General Counsel and Secretary
Karl A. Spangenberg	VP Worldwide Advertising

Company Strategy

Infoseek's objective is to establish itself as the dominant branded media navigation and content aggregation service provider on the Internet.

The company seeks to build a high volume of traffic on its services to provide a preferred platform on which content providers and advertisers reach their target audiences.

The company's strategy contains the following key elements:

- Create brand recognition and consumer loyalty
- Create innovative solutions for advertisers
- Use leading-edge search and directory technologies
- Create and expand branded content partnerships
- Maximize audience reach through distribution relationships
- Leverage media and technical expertise

Product Strategy

Infoseek intends to enhance its services to users through the addition of new features and functionality; development and licensing of technologies that can differentiate its service and scale with the growth of the Internet; distribution of its service widely through software companies, access providers, and others; and forming relationships with leading third-party content providers.

Financials

Although Infoseek was formed in 1994, the company did not introduce its first products and services until 1995; as a result, 1995 was the first year Infoseek generated any revenue.

For 1995, Infoseek recorded total revenue of \$1 million and net losses of approximately \$3.3 million (\$0.13 per share).

A comparison of the results for the six months ending June 30, 1996 versus June 30, 1995 follows:

- For the six months ending June 30, 1996, revenue reached \$5.0 million, up from \$59,000 for the same period in 1995. Net losses were \$8.3 million, compared to net losses of \$321,000 for the same period a year ago.
- Research and development costs for the first six months of 1996 were approximately \$1.6 million, up from \$1.4 million for the same period in 1995. Management attributes the increase to personnel costs and equipment depreciation, and to the product development costs necessary to remain competitive.
- Sales and marketing expenses for the first half of 1996 were \$8.8 million, compared to \$321,000 for the same period in 1995. This increase consisted primarily of compensation of sales and marketing personnel and promotional expenses, including payments to Netscape pursuant to an advertising revenue-sharing arrangement for the listing of Infoseek's product on the Netscape Web page.

Revenue Analysis by Product/Service

Infoseek derives substantially all of its revenues from the sale of advertisements.

- These advertisements appear on the *Infoseek* Web page as the user enters the service, performs a search, or browses

through the Directory or Toolbar.

- Advertising revenues represented 82% and 96% of the company's total revenues for fiscal 1995 and the first quarter of 1996, respectively.
- During the first half of 1996, over 120 advertisers placed advertisements on the company's service.

Geographic Markets

Substantially all of Infoseek's revenues come from the U.S..

Employees

As of June 30, 1996, Infoseek had 90 employees.

Key Products and Services

Infoseek provides a navigation and content aggregation service targeted to individuals and offered free to users.

Infoseek

Infoseek is a navigation tool that integrates multiple methods of obtaining information from the Internet through four principal resources: Search, Directory, iZones, and Toolbar.

- Search allows the user to effect query-based searches of the Web, USENET News, and other premium content databases or the Directory.
- Directory is a hierarchical listing of Web pages that have been selected and abstracted by Infoseek and organized by category.
- iZones are special-interest editorial features created exclusively for Infoseek by leading third-party content providers such as Billboard Online, Conde Nast Publications, The Hearst Corporation, Inc. Online, Macworld Online, and SportsLine USA.
- Toolbar is a set of buttons available on the Infoseek user interface that provide users with access to certain content providers in areas of general interest, such as news, weather, stock prices, and interactive shopping directories.

Infoseek Ultra

In August 1996, Infoseek released the beta version of Infoseek Ultra, a new search technology designed to provide users with the easiest, most effective way to find information on the Internet and the Web.

Through its new spider technology, Infoseek Ultra is the first search service to provide a virtual real-time index of the Internet, allowing users to receive the most up-to-date information available on their topic.

Infoseek Ultra's new technology loads Web pages based upon how often they change, and also filters out dead and duplicate links that exist on the Internet.

A beta version of Infoseek Ultra is currently available for free trial at the *Infoseek* home page.

Advertising Services

Infoseek has developed certain proprietary systems for the instantaneous placement of advertisements with targeted audiences on appropriate *Infoseek* Web pages.

Infoseek's advertising management systems are capable of real-time presentation of advertising that corresponds to a user's inquiry.

Infoseek offers advertisers four main advertising options that may be purchased individually or in packages:

- *General Rotation* --advertisements rotate on a random basis through *Infoseek* on search result pages and pages accessed through the Toolbar. General rotation offers advertisers seeking to establish brand recognition across the broad, general population the broadest reach of Internet users.

- **Topic Pages**-- advertisements appear when an Infoseek user browses through Directory topic pages. Topic Pages allow advertisers to target an audience with a specific area of interest.
- **Keyword** - advertisements are displayed when an Infoseek user's search contains a particular keyword selected by the advertiser. Keyword offers the advertiser a highly targeted self-selected audience.
- **Special Placement** --advertisements are displayed on special feature pages, such as iZones and in other manners customized to the needs or requests of the advertiser.

Clients

A partial list of customers includes AT&T, Discovery Channel, GTE, Hearst New Media, IBM, Intel, Marketplace MCI, Microsoft, Netscape, Nissan, NYNEX, SportsLine USA, Starwave, Swatch, and Adaptec.

Marketing and Sales

Infoseek's market strategy is to build brand awareness for Infoseek through on-line and trade advertising, trade shows, print media, and promotions. The company also seeks to establish relationships with key marketing partners.

Infoseek was able to gain access to a large audience and build early brand awareness through its initial relationship with Netscape Communications as the sole premier navigational service on the Netscape Web page.

In April 1996, Netscape implemented a new navigational service structure with five navigational service providers available (Infoseek, Lycos, Yahoo!, Magellan, Excite).

In order to maximize its exposure, Infoseek has broadened its channels of distribution through other entities, including Microsoft Corporation, NETCOM On-Line Communication Services, Inc., NYNEX Information Technologies Co., Sprint, PointCast, Quarterdeck Corporation, and Verity.

Alliances

Infoseek has a variety of alliances and relationships with companies, specifically Web browser vendors, to maximize the audience reach of company products and create alternate distribution channels to the company's services.

Among these relationships include the following:

- Sun Microsystems, Inc. and Infoseek have entered into a comarketing relationship under which Infoseek has agreed to use Sun equipment exclusively for use with Infoseek Ultra. In return, Infoseek receives terms on its purchases of certain Sun equipment and the two companies promote each other's products and services.
- Quarterdeck, NETCOM, NetManage, and FreeLoader all have relationships with Infoseek, in which all feature *Infoseek* as a navigational tool and engage in certain promotional activities. The actual terms of the relationships vary in the prominence given to *Infoseek* relative to other alternatives and the compensation paid by Infoseek for the traffic.
- Infoseek is currently one of five premier providers of navigational services on Netscape's Web page under the terms of an agreement with Netscape Communications Corp. from April 10, 1996 to March 31, 1997.
- NYNEX and Infoseek entered into a one-year agreement in March 1996 that makes NYNEX's interactive shopping directory, BigYellow, the exclusive comprehensive shopping directory within *Infoseek*.
- Sprint uses Infoseek's Internet navigation service as the premier search solution for Sprint Internet Passport, its new consumer Internet access service.
- PointCast and Infoseek have a technology agreement that provides PointCast network viewers with the option of accessing additional news and information from Infoseek via a PointCast/Infoseek cobranded Web page.
- Verity, Inc. and Infoseek have a distribution agreement under which Verity will provide a link to *Infoseek* on the user interface of the new Verity product called Topics Search for Exchange, which is designed for intranets.
- Kanematsu Corporation, a Japanese trading company, and Infoseek have entered into a memorandum of understanding and a marketing alliance agreement under which the parties will establish a Japanese Internet search and retrieval service containing listings of Japanese Web sites written in Japanese and a Japanese translation of the *Infoseek* Directory.
- ACSIO, an entity related to the University of Massachusetts, licenses information retrieval technology to Infoseek.
- Xerox licenses software technologies to Infoseek that the company intends to use for the linguistic analysis of search terms.
- HNC and Infoseek have entered into an agreement in which Infoseek will license certain technologies from HNC to automate the development of *Infoseek*'s Web Directory feature.
- Additionally, Infoseek promotes the creation of hyperlinks between *Infoseek* and other Web sites. Over 3,000 sites on the Web currently contain pointers to *Infoseek*.

Competition

A number of companies offer competitive products and services addressing Infoseek's target markets.

Primary among these are companies offering Web search services, including America Online, Inc., Digital Equipment Corp., Excite, Inc., Lycos, Inc., The McKinley Group, Open Text Corp., CompuServe Corp., Prodigy Services Company, and Yahoo! Inc.

In addition, Infoseek competes with metasearch services that allow a user to search the databases of several catalogs and directories simultaneously.

The company also competes indirectly with database vendors that offer information search and retrieval capabilities with their core database products.

INPUT Assessment

Infoseek's strengths include:

- Brand awareness gained from its premier navigational service provider role with Netscape
- Current position on Netscape Communications' Web page
- Alliances with other major Internet players (Quarterdeck, Microsoft, NETCOM)

Challenges in the future include:

- Creating and promoting product differences in a relatively homogeneous product market
- Developing advertising capabilities to increase revenue base and movement toward profitability
- Intense competition from vendors in a variety of industries

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